

State of Montana
Department of Environmental Quality
Helena, Montana 59620

AIR QUALITY OPERATING PERMIT NUMBER OP2557-03

Administrative Amendment Application Received: September 25, 2003
Application Deemed Administratively Complete: September 25, 2003
Application Deemed Technically Complete: September 25, 2003
AFS Number: 030-049-0001A

Date of Decision: 10/22/03
Effective Date: 11/24/03
Expiration Date: 04/04/07

In accordance with the Montana Code Annotated sections 75-2-217 and 218, and the Administrative Rules of Montana (ARM) Title 17, Chapter 8, Subchapter 12, Operating Permit Program, ARM 17.8.1201, *et seq.*,

ASARCO Incorporated
NW¼ of Section 36, Township 10 North, Range 3 West, Lewis and Clark County
100 Smelter Road
Highway 12 East
P.O. Box 1230
East Helena, Montana 59635

hereinafter, referred to as ASARCO, is authorized to operate a stationary source of air contaminants consisting of the emission units described in this permit. Until this permit expires or is modified or revoked, ASARCO is allowed to discharge air pollutants in accordance with the conditions of this permit. All conditions in this permit are federally and state enforceable unless otherwise specified. Requirements which are state only enforceable are identified as such in the permit. A copy of this permit must be kept on site at the above named facility.

Issued by the Department of Environmental Quality

Signature

Date

Permit Issuance and Appeal Process: In accordance with ARM 17.8.1210(j), the Department of Environmental Quality's (Department) decision regarding issuance of an operating permit is not effective until 30 days have elapsed from the date of the decision issued 10/22/03. The decision may be appealed to the Board of Environmental Review by filing a request for a hearing within 30 days after the date of decision. If no appeal is filed then the Department will send notification and a final permit cover page to be attached to this document stating that the permit is final. Questions regarding the final issuance date and status of appeals should be directed to the Department at (406) 444-3490.

**Montana Air Quality Operating Permit
Department of Environmental Quality**

| | |
|---|----------|
| SECTION I. GENERAL INFORMATION..... | 1 |
| SECTION II. SUMMARY OF EMISSION UNITS | 4 |
| SECTION III. OPERATING PERMIT CONDITIONS | 8 |
| A. FACILITY-WIDE CONDITIONS..... | 8 |
| B. SO ₂ SIP BUBBLED EMISSIONS | 12 |
| C. LEAD MACT PROCESS & PROCESS FUGITIVE SOURCES | 18 |
| D. LEAD MACT FUGITIVE DUST SOURCES | 23 |
| E. EU001 - SAMPLE MILL (1P)..... | 24 |
| F. EU002 - LABORATORY (2P)..... | 26 |
| G. EU003 - THAW HOUSE (28V) | 27 |
| H. EU004 - HIGH GRADE BUILDING DUMPING AREA (4V)..... | 28 |
| I. EU005 - RAIL CAR LOADOUT HOPPER (23P) | 30 |
| J. EU006 - OLD ORE STORAGE YARD (3V)..... | 32 |
| K. EU007 - CONCENTRATE STORAGE & HANDLING BUILDING - (6P*)..... | 35 |
| L. EU009 - SINTER PLANT BUILDING (6V) | 37 |
| M. EU010 - SINTER PLANT VENTILATION SYSTEM (6P*) | 40 |
| N. EU011 & EU013 - SINTER PLANT ROOF BAGHOUSES | 42 |
| O. EU015 - EU022 SINTER PLANT PRIMARY AIR POLLUTION CONTROL..... | 45 |
| P. EU024 - SINTER STORAGE BUILDING BAGHOUSE (21P*) | 49 |
| Q. EU025-EU021 - ACID DUST TEMPORARY ACCUMULATION..... | 52 |
| R. EU027 - ACID DUST HANDLING & CONVEYING SYSTEM & AGGLOMERATOR BUILDING (6P). 53 | |
| S. EU028 - OUTDOOR SINTER STORAGE AND SINTER HANDLING (8Vf) | 56 |
| T. EU029 - DIRECT SMELT BINS & DIRECT SMELT BUILDING (8Vi)..... | 58 |
| U. EU030 - COKE HANDLING (29V)..... | 62 |
| V. EU031 - EU035 BLAST FURNACE CHARGE BUILDING..... | 63 |
| W. EU037 - EU038 BLAST FURNACE FEED FLOOR | 66 |
| X. EU039 - EU040 BLAST FURNACE | 68 |
| Y. EU041 - EU042 BLAST FURNACE TAPPING PLATFORM..... | 70 |
| Z. EU043 - EU044 SLAG HANDLING | 74 |
| AA. EU045 - BLAST FURNACE STACK - 16P | 76 |
| BB. EU046 - BLAST FURNACE BAGHOUSE DUST CLEANOUT AREA & BAGHOUSE (*16P)..... | 78 |
| CC. EU047 - BLAST FURNACE FLUE CLEANOUT (19V) | 81 |
| DD. EU048 – HOPTO UNLOADING AND BLAST FURNACE BAGHOUSE DUST RECLAIMING (2V) | 84 |
| EE. EU049 - BREAKING FLOOR BUILDING (8VA)..... | 87 |
| FF. EU050 - REAGENT BIN MATERIAL HANDLING (30V) | 88 |
| GG. EU051-EU052 – TETRAHEDRITE DRIER..... | 89 |
| HH. EU053 - EU058 DROSS PLANT COMBUSTION EMISSIONS (*21P)..... | 94 |
| II. EU059 - EU067 DROSS PLANT PROCESS EMISSIONS (21P) | 96 |
| JJ. EU068 - DROSS PLANT BUILDING (19P) | 98 |
| KK. EU069 - DROSS PLANT BAGHOUSE (21P) | 100 |
| LL. EU070 - DROSS PLANT STACK - 21P..... | 103 |
| MM. EU071 - EU072 SPEISS & MATTE HANDLING | 105 |
| NN. EU073 - PAVED PLANT AREAS AND ROADS WITHIN THE ASARCO FACILITY (3A) | 109 |
| OO. EU074 - UNPAVED PLANT AREAS AND ROADS WITHIN THE ASARCO FACILITY (2A) | 111 |
| PP. EU075 - HAUL TRUCKS | 114 |
| QQ. EU076 - WIND EROSION (1A)..... | 114 |
| RR. EU077 – EU080 HERO WATER TREATMENT PLANT | 118 |
| SS. EU081 - PRINTED CIRCUIT BOARD MATERIAL (CBM) PROCESSING..... | 120 |

| | |
|---|------------|
| TT. EU083 - GASOLINE STORAGE TANK(S) | 123 |
| UU. EU084 - EAST HELENA PAVED ROAD DUST CONTROL PLAN | 124 |
| SECTION IV. NON-APPLICABLE REQUIREMENTS | 127 |
| A. FACILITY WIDE | 127 |
| B. EMISSION UNITS | 127 |
| SECTION V. GENERAL PERMIT CONDITIONS..... | 128 |
| A. COMPLIANCE REQUIREMENTS..... | 128 |
| B. CERTIFICATION REQUIREMENTS..... | 128 |
| C. PERMIT SHIELD..... | 129 |
| D. MONITORING, RECORDKEEPING, AND REPORTING REQUIREMENTS..... | 130 |
| E. PROMPT DEVIATION REPORTING | 131 |
| F. EMERGENCY PROVISIONS | 131 |
| G. INSPECTION AND ENTRY | 132 |
| H. FEE PAYMENT | 132 |
| I. MINOR PERMIT MODIFICATIONS | 132 |
| J. CHANGES NOT REQUIRING PERMIT REVISION | 133 |
| K. SIGNIFICANT PERMIT MODIFICATIONS | 134 |
| L. REOPENING FOR CAUSE | 134 |
| M. PERMIT EXPIRATION AND RENEWAL | 134 |
| N. SEVERABILITY CLAUSE..... | 135 |
| O. TRANSFER OR ASSIGNMENT OF OWNERSHIP..... | 135 |
| P. EMISSIONS TRADING, MARKETABLE PERMITS, ECONOMIC INCENTIVES..... | 135 |
| Q. NO PROPERTY RIGHTS CONVEYED | 135 |
| R. TESTING REQUIREMENTS | 136 |
| S. SOURCE TESTING PROTOCOL | 136 |
| T. MALFUNCTIONS | 136 |
| U. CIRCUMVENTION | 136 |
| V. MOTOR VEHICLES | 136 |
| W. ANNUAL EMISSION INVENTORY..... | 136 |
| X. OPEN BURNING..... | 136 |
| Y. PRECONSTRUCTION PERMITS..... | 136 |
| Z. NATIONAL EMISSION STANDARD FOR ASBESTOS..... | 137 |
| AA. ASBESTOS..... | 137 |
| BB. STRATOSPHERIC OZONE PROTECTION – SERVICING OF MOTOR VEHICLE AIR CONDITIONERS | 137 |
| CC. STRATOSPHERIC OZONE PROTECTION – RECYCLING AND EMISSION REDUCTION | 138 |
| DD. EMERGENCY EPISODE PLAN..... | 138 |
| EE. DEFINITIONS..... | 138 |

LIST OF APPENDICES

| | |
|---|-----|
| APPENDIX. A INSIGNIFICANT EMISSION UNITS | A-1 |
| APPENDIX. B DEFINITIONS AND ABBREVIATIONS | B-1 |
| APPENDIX. C NOTIFICATION ADDRESSES | C-1 |
| APPENDIX. D AIR QUALITY INSPECTOR INFORMATION | D-1 |

Terms not otherwise defined in this permit or in the Definitions and Abbreviations Appendix of this permit have the meaning assigned to them in the referenced regulations.

SECTION I. GENERAL INFORMATION

The following general information is provided pursuant to ARM 17.8.1210(1).

Company Name: **ASARCO Incorporated**

Mailing Address: **100 Smelter Road, Highway 12 East; P.O. Box 1230**

City: **East Helena**

State: **Montana**

Zip: **59635**

Plant Location: **Northwest 1/4, Section 36, Township 10 North, Range 3 West, Lewis & Clark County**

Responsible Official: **Blaine Cox**

Phone: **406-227-7177**

Facility Contact Person: **Jon Nickel**

Phone: **406-227-7191**

Primary SIC Code: **3332**

Nature of Business: **Primary Lead Smelter**

Description of Process:

The East Helena smelter processes a wide variety of feed materials that are obtained from sources outside the facility. These materials include ore concentrates, crude ores, residues, by-products, fluxes, dusts, slags, and other metal bearing materials. Fluxing reagents such as limerock and silica, and fuels such as coke and coke breeze are also critical components in the smelting process. The majority of the feed materials (estimated at 60 % of all receipts) are received in solid bottom railcars with a smaller percent being received in haul trucks or in enclosed containers. Fluxing reagents such as limerock and silica are included in the 60% feed material.

All in-coming feed materials that are received into the East Helena smelter (except those materials that are handled in the old ore storage yard, hopto unloading and blast furnace dust reclaiming area, or high grade building area) are handled in the Concentrate Storage and Handling Building (CSHB). This building is designed to enclose and ventilate the unloading, storage, mixing, blending, and conveying operations of the great majority of material that is to be smelted. The unloading of feed material from solid bottom railcars is performed inside the building using overhead cranes. Feed materials are placed into open storage bins within the CSHB for temporary holding. The CSHB is equipped with truck doors that allow haul trucks to directly transfer feed material into the CSHB. Feed material is transferred by overhead crane from the storage bins to belt feeder bins. The belt feeder bins are designed to proportion the feed material onto a main feed belt. The main feed belt transfers the feed mixture to the sinter belt through a conveyor gallery.

The charge to the sinter plant is made-up of carefully measured amounts of feed material from each of the 12 feeders that are located in the CSHB. The feed material is conveyed by belt lines from the CSHB to a hammermill located in the sinter plant building, where it is thoroughly pulverized. The charge is then mixed with return sinter, a previously roasted and sized material, from which most of the sulfur has been removed.

The purpose of sintering is to reduce the sulfur content of the feed material to approximately 1.5% and to produce a porous agglomerated material, called sinter, which is visibly similar to volcanic lava and suitable for blast furnace smelting. Sintering consists of roasting the mixture of moistened feedstocks, flux, and coke breeze on a bed of traveling grates - a belt loop of revolving cast steel pallet sections. The mixture is ignited and burned under forced updraft in the enclosed and ventilated sinter machine. The machine produces final sinter, which is crushed and segregated before being conveyed to the sinter storage hopper or the sinter storage building.

The strong gases (high SO₂ concentration) produced in the sintering process contain high levels of particulate and approximately 2%-3% sulfur dioxide. These gases must be cleaned before being directed into the acid plant. First, process gases are drawn through an electrostatic precipitator (ESP), or hot cottrell, to remove 99% of the dust contained in the process gases. Next, the process gases pass through a scrubber tower. The scrubber tower contains two sets of open and packed water scrubbers which remove the final traces of particulate. Finally, the process gases are routed through mist precipitators to remove any acid mist droplets and to produce an optically clear gas for the acid plant.

The gas stream is dried by direct contact with 93% sulfuric acid in a drying tower. The clean, cool, dry gas is then heated to 800°F or higher before entering the acid plant converter. At this temperature, the sulfur dioxide reacts with oxygen in the presence of vanadium and cesium-promoted catalyst to form sulfur trioxide. In the process, the sulfur trioxide is removed from the converted gas by passing this gas, cooled to about 380°F, through an interstage absorbing tower to form 98% sulfuric acid. Because 98% acid freezes at 30°F, the acid is fed back through the drying tower and diluted to 93% strength prior to shipment.

The weak gas from the sintering process is directed to a cyclone, and then to the sinter plant (D&L) baghouse for cleaning before being vented to the sinter plant stack. The particulate matter captured by the hot cottrell and sinter plant baghouse is conveyed to the acid dust handling facility.

Feed material that is directed to the blast furnace for smelting is handled in the blast furnace charge building. Feed material handled in the blast furnace charge building is conveyed to the blast furnace using the blast furnace charge car.

Blast furnace feed material consists of sinter, coke, by-product dusts, direct smelt materials, filter cake, scrap iron, and general plant cleanup. Sinter and coke are typically loaded directly to the blast furnace charge car from enclosed hoppers. Finally, direct smelt materials, filter cakes, plant cleanup, and other by-product materials are loaded directly by front-end loaders to the charge car. Scrap iron is loaded to the charge car from a pan conveyor or by payloader.

The bottom-dump charge cars are hoisted up an inclined rail by cable from the blast furnace charge building to the blast furnace feed floor. The charge car is positioned on a transfer carrier at the top of the incline. The transfer carrier is connected to laterally moving cables that position the charge car over one of four sections of the blast furnace. The bottom doors of the charge car are pneumatically actuated to release the furnace charge to the blast furnace.

The blast furnace is a water-jacketed, rectangular column, in which the charge is smelted. Smelting occurs when oxygen enriched air is injected into the bottom of the blast furnace through a number of pipe-like openings called tuyeres. The blast air burns the coke, providing heat to melt the charge, and provides an agent to reduce the lead oxide formed in the sinter process. As the molten lead flows through the charge, it absorbs other metals such as gold, silver, copper, and relatively small amounts of antimony, bismuth, and tin. The molten furnace lead and molten slag (comprised primarily of silica, iron, lime, and zinc) are tapped on an ongoing basis from the bottom of the furnace. There are 2 blast furnaces at the East Helena facility (only one may operate at a time), and emissions are controlled by the Blast Furnace Baghouse.

The molten mixture flows by gravity into a primary settler where the furnace lead separates from the slag. Since the furnace lead has a higher density than the slag, it will descend to the bottom of the primary settler. Furnace lead is then forced from the primary settler through a gooseneck siphon into a 5-ton lead pot. Slag, being less dense than furnace lead, will float on top of the liquid in the primary settler. The slag will overflow into a secondary settler or jitney. Additional separation of the furnace lead and slag will occur in the jitney. The slag flows from the jitney into a slag pan where it is allowed to air cool. The molten furnace lead is transported in 10-ton pots to the dross plant for further treatment.

Molten blast bullion is transferred to the dross plant in 10-ton lead pots. The molten lead is poured into a receiving kettle using an overhead crane. The lead bullion is cooled, causing the copper bearing material that is soluble at high temperatures to precipitate out of the bullion and float to the surface of the kettle. This material is commonly referred to as dross. The dross is skimmed off into skips with a clamshell bucket connected to an overhead crane. The dross is transported by the overhead crane and charged into the dross reverberatory furnace. Once the dross is removed from the surface of the lead bullion, the remaining lead bullion is transferred by a large ladle into one of two finishing kettles. The lead bullion may receive further treatment in these kettles, with materials such as sawdust or sulfur, to form additional dross. These drosses are skimmed off the surface of the lead bullion and treated in the dross reverberatory furnace. Once drossing is complete, the remaining lead bullion is pumped into 5 or 10-ton molds. The cooled lead bullion is shipped to a lead refinery for further processing.

The drosses are treated in the reverberatory furnace, remelted, and separated into three components: matte, speiss, and lead. Matte (copper sulfide) and speiss (copper antimony and arsenide) are tapped jointly from the furnace into an air-mist granulator and then shipped to a copper smelter. The lead is returned to the finishing kettles to be treated. The dross building has been enclosed to contain dross plant emissions. All these emissions are vented to the dross plant baghouse and exhaust through the dross plant stack.

SECTION II. SUMMARY OF EMISSION UNITS

The emission units regulated by this permit are the following (ARM 17.8.1211):

| Emission Unit ID | EU Description | Pollution Control Device/Practice (Emission Point) | Stack | Asarco EPN |
|-------------------------|--|---|-------------------------------------|-------------------|
| EU001 | Sample Mill | Sample Mill Baghouse | Sample Mill Baghouse Stack | 1P |
| EU002 | Laboratory | None | Lab Assay Stack | 2P |
| EU003 | Thaw House | None – Fugitive Emissions | None | 28V |
| EU004 | High Grade Building Dumping Area | None – Fugitive Emissions | None | 4V |
| EU005 | Rail Car Loadout Hopper | Rail Car Loadout Baghouse | Rail Car Loadout Baghouse Stack | 23P |
| EU006 | Old Ore Storage Yard | None – Fugitive Emissions | None | 3V |
| EU007 | Concentrate Storage & Handling Building (CSHB) | CSHB Baghouses (North, South, Feeder Room) | CSHB Stack | 6P |
| EU008 | CSHB Stack | ----- | ----- | 6P |
| EU009 | Sinter Plant Building | None – Fugitive Emissions | None | 6V |
| EU010 | Sinter Plant Ventilation System (SPVS) | Sinter Plant Ventilation System (SPVS) Baghouse | CSHB Stack | 6P |
| EU011 | Sinter Plant Roof | #7 Sinter Plant Roof Baghouse | #7 Sinter Plant Roof Baghouse Stack | 3Pa |
| EU012 | #7 Sinter Plant Roof Baghouse Stack | ----- | ----- | 3Pa |
| EU013 | Sinter Plant Roof | #8 Sinter Plant Roof Baghouse | #8 Sinter Plant Roof Baghouse Stack | 4Pa |
| EU014 | #8 Sinter Plant Roof Baghouse Stack | ----- | ----- | 4Pa |
| EU015 | Sinter Plant Strong Gas | Sinter Plant ESP (Hot Cotrell) Penthouse – Fugitive Emissions | None (8P) | 7V |
| EU016 | Sinter Plant Strong Gas | Acid Plant Scrubber Towers – Fugitive Emissions | None (8P) | 27V |
| EU017 | Sinter Plant Strong Gas | Mist Precipitator and Building – Fugitive Emissions | None (8P) | 24V |
| EU018 | Sinter Plant Strong Gas | Acid Pump Tank and Building – Fugitive Emissions | None (8P) | 26V |
| EU019 | Sinter Plant Strong Gas | Acid Plant (Single Contact) | Acid Plant Stack | 8P |
| EU020 | Acid Plant Stack | ----- | ----- | 8P |
| EU021 | Sinter Plant Weak Gas | Sinter Plant Cyclone | None (7P) | 7P |
| EU022 | Sinter Plant Weak Gas | Sinter Plant (D&L) Baghouse | Sinter Plant (D&L) Stack | 7P |
| EU023 | Sinter Plant Stack | ----- | ----- | 7P |
| EU024 | Sinter Storage Building | Sinter Storage Building Baghouse | Dross Plant Stack | 21P |
| EU025 | Acid Dust Bin | Acid Dust Bin Baghouse (17P), Sinter Plant (D&L) Baghouse | Sinter Plant Stack | 7P |

| Emission Unit ID | EU Description | Pollution Control Device/Practice (Emission Point) | Stack | Asarco EPN |
|-------------------------|--|--|-----------------------------------|-------------------|
| EU026 | Acid Dust Bin Building | None – Fugitive Emissions | None | 17V |
| EU027 | Acid Dust Agglomerator Bldg. | CSHB Ventilation System to CSHB Baghouses (North and South) | CSHB Stack | 6P |
| EU028 | Outdoor Sinter Storage & Sinter Handling | None – Fugitive Emissions | None | 8Vf |
| EU029 | Direct Smelt Bins | None – Fugitive Emissions | None | 8Vi |
| EU030 | Coke Handling | None – Fugitive Emissions | None | 29V |
| EU031 | Blast Furnace Charge Building | None – Fugitive Emissions | None | 8Vb |
| EU032 | Blast Furnace Charge Building Portland Cement Silo | Portland Cement Silo Baghouse | Dross Plant Baghouse Stack | 21P |
| EU033 | Blast Furnace Charge Building BF Baghouse Dust Silo | Blast Furnace (BF) Baghouse Dust Silo Baghouse | Dross Plant Baghouse Stack | 21P |
| EU034 | Blast Furnace Charge Building Agglomerator Charge Hopper | Agglomerator Charge Hopper Baghouse (vents into the Sinter Storage Baghouse) | Dross Plant Baghouse Stack | 21P |
| EU035 | Blast Furnace Charge Building Agglomerator | Sinter Storage Baghouse | Dross Plant Baghouse Stack | 21P |
| EU037 | Blast Furnace Feed Floor | Blast Furnace Baghouse | Blast Furnace Baghouse Stack | 16P |
| EU038 | Blast Furnace Feed Floor Fugitives | None – Fugitive Emissions | None | 9V |
| EU039 | Blast Furnace #1 | Blast Furnace Baghouse | Blast Furnace Baghouse Stack | 16P |
| EU040 | Blast Furnace #3 | Blast Furnace Baghouse | Blast Furnace Baghouse Stack | 16P |
| EU041 | Blast Furnace Tapping Platform | Blast Furnace Baghouse | Blast Furnace Baghouse Stack | 16P |
| EU042 | Blast Furnace Tapping Fugitives | None – Fugitive Emissions | None | 10V |
| EU043 | Slag Handling Area Fugitive Emissions | None – Fugitive Emissions | None | 11V |
| EU044 | Slag Pile Dumping Area Fugitive Emissions | None – Fugitive Emissions | None | 12V |
| EU045 | Blast Furnace Stack | ----- | ----- | 16P |
| EU046 | Blast Furnace Baghouse Dust Cleanout Area | Blast Furnace Baghouse Dust Cleanout Baghouse | Blast Furnace Baghouse Stack | 16P |
| EU047 | Blast Furnace Flue Cleanout | None – Fugitive Emissions | None | 19V |
| EU048 | Hopto Unloading and Blast Furnace Baghouse Dust Reclaiming | None – Fugitive Emissions | None | 2V |
| EU049 | Breaking Floor Building | None – Fugitive Emissions | None | 8Va |
| EU050 | Reagent Bin Material Handling | None – Fugitive Emissions | None | 30V |
| EU051 | Tetrahedrite Drier | Tetrahedrite Drier Baghouse | Tetrahedrite Drier Baghouse Stack | 10P |
| EU052 | Tetrahedrite Building | None – Fugitive Emissions | None | 16V |

| Emission Unit ID | EU Description | Pollution Control Device/Practice (Emission Point) | Stack | Asarco EPN |
|-------------------------|--|---|---------------------------------|-------------------|
| EU053 | Dross Plant Kettle #1 Combustion Emissions | Dross Plant Baghouse | Dross Plant Baghouse Stack | 21P |
| EU054 | Dross Plant Kettle #2 Combustion Emissions | Dross Plant Baghouse | Dross Plant Baghouse Stack | 21P |
| EU055 | Dross Plant Kettle #3 Combustion Emissions | Dross Plant Baghouse | Dross Plant Baghouse Stack | 21P |
| EU056 | Dross Plant Kettle #4 Combustion Emissions | Dross Plant Baghouse | Dross Plant Baghouse Stack | 21P |
| EU058 | Dross Plant Reverberatory Furnace Combustion Emissions | Dross Plant Baghouse | Dross Plant Baghouse Stack | 21P |
| EU059 | Dross Plant Kettle #1 Process Emissions | Dross Plant Baghouse | Dross Plant Baghouse Stack | 21P |
| EU060 | Dross Plant Kettle #2 Process Emissions | Dross Plant Baghouse | Dross Plant Baghouse Stack | 21P |
| EU061 | Dross Plant Kettle #3 Process Emissions | Dross Plant Baghouse | Dross Plant Baghouse Stack | 21P |
| EU062 | Dross Plant Kettle #4 Process Emissions | Dross Plant Baghouse | Dross Plant Baghouse Stack | 21P |
| EU063 | Dross Plant #4 Launder Process Emissions | Dross Plant Baghouse | Dross Plant Baghouse Stack | 21P |
| EU064 | Dross Plant Reverberatory Furnace Process Emissions | Dross Plant Baghouse | Dross Plant Baghouse Stack | 21P |
| EU065 | Dross Plant Reverberatory Furnace Charge Hole | Dross Plant Baghouse | Dross Plant Baghouse Stack | 21P |
| EU066 | Dross Plant Speiss/Matte Tap Process Emissions | Dross Plant Baghouse | Dross Plant Baghouse Stack | 21P |
| EU067 | Dross Plant Speiss/Matte Launder Process Emissions | Dross Plant Baghouse | Dross Plant Baghouse Stack | 21P |
| EU068 | Dross Plant Building | Dross Plant Baghouse | Dross Plant Baghouse Stack | 21P |
| EU069 | Dross Plant Baghouse | N/A | Dross Plant Baghouse Stack | 21P |
| EU070 | Dross Plant (Baghouse) Stack | N/A | Dross Plant Baghouse Stack | 21P |
| EU071 | Speiss & Matte Granulating Pit | Blast Furnace Baghouse | Blast Furnace Baghouse Stack | 16P |
| EU072 | Speiss & Matte Handling | None – Fugitive Emissions | None | 15V |
| EU073 | Paved Plant Areas and Roads within ASARCO | Sweeping, Vacuuming & Washing – Fugitive Emissions | None | 3A |
| EU074 | Unpaved Plant Areas and Roads within ASARCO | Dust Suppressants, Water Application – Fugitive Emissions | None | 2A |
| EU075 | Haul Trucks | Grating | None | |
| EU076 | Wind Erosion | Dust Suppressants – Fugitive Emissions | None | 1A |
| EU077 | HERO Spray Dryer | HERO Spray Dryer Baghouse | HERO Spray Dryer Baghouse Stack | 22P |
| EU078 | HERO Spray Dry Solids (Dust) Storage Silo | HERO Bin Vent Baghouse HERO Spray Dryer Baghouse | HERO Spray Dryer Baghouse Stack | 22P |
| EU079 | HERO Load Out Hopper | HERO Spray Dryer Baghouse | HERO Spray Dryer Baghouse Stack | 22P |
| EU080 | HERO Degassifier Vents | None | None | |

| Emission Unit ID | EU Description | Pollution Control Device/Practice (Emission Point) | Stack | Asarco EPN |
|-------------------------|--|--|------------------------------|-------------------|
| EU081 | Printed Circuit Board Material Pyrolyzing (Rotary Melting Furnace) | Thermal Oxidizer (Acid Gas Incinerator) | Blast Furnace Baghouse Stack | 16P |
| EU082 | Thermal Oxidizer | Blast Furnace Baghouse Dust Cleanout Baghouse | Blast Furnace Baghouse Stack | 16P |
| EU083 | Gasoline Storage Tank(s) | Vapor Loss Control Device, Submerged Fill, or Pressure Tank – Fugitive Emissions | N/A | |
| EU084 | East Helena Paved Road Dust Control Plan | Sweeping, Vacuuming & Washing – Fugitive Emissions | None | |

SECTION III. OPERATING PERMIT CONDITIONS

The following requirements and conditions are applicable to the facility or to specific emission units located at the facility (ARM 17.8.1211,1212, and 1213).

A. Facility-Wide Conditions

| Conditions | Rule Citation | Rule Description | Pollutant / Parameter | Limit |
|------------|--|--|---|---|
| A.1 | ARM 17.8.304(1) | Visible Air Contaminants | Opacity | 40% |
| A.2 | ARM 17.8.304(2) | Visible Air Contaminants | Opacity | 20% |
| A.3 | ARM 17.8.308(1) | Particulate Matter, Airborne | Fugitive Opacity | 20% |
| A.4 | ARM 17.8.308(2) | Particulate Matter, Airborne | Reasonable Precautions | ----- |
| A.5 | ARM 17.8.308 Lead SIP Section 3(C)(3) | Particulate Matter, Airborne | Reasonable Precaution, Construction | 20% |
| A.6 | ARM 17.8.309 | Particulate Matter, Fuel Burning Equipment | Particulate Matter | $E = 0.882 * H^{-0.1664}$ or $E = 1.026 * H^{-0.233}$ |
| A.7 | ARM 17.8.310 | Particulate Matter, Industrial Processes | Particulate Matter | $E = 4.10 * P^{0.67}$ or $E = 55 * P^{0.11} - 40$ |
| A.8 | ARM 17.8.322(4) | Sulfur Oxide Emissions, Sulfur in Fuel | Sulfur in Fuel (liquid or solid fuels) | 1 lb/MMBtu fired |
| A.9 | ARM 17.8.322(5) | Sulfur Oxide Emissions, Sulfur in Fuel | Sulfur in Fuel (gaseous) | 50 gr/100 CF |
| A.10 | ARM 17.8.324(3) | Hydrocarbon Emissions, Petroleum Products | Gasoline Storage Tanks | ----- |
| A.11 | ARM 17.8.324 | Hydrocarbon Emissions, Petroleum Products | 65,000-Gallon Capacity | ----- |
| A.12 | ARM 17.8.324 | Hydrocarbon Emissions, Petroleum Products | Oil-effluent Water Separator | ----- |
| A.13 | ARM 17.8.1212 | Reporting Requirements | Compliance Monitoring | ----- |
| A.14 | ARM 17.8.1207 | Reporting Requirements | Annual Certification | ----- |
| A.15 | 40 CFR Part 51 | State Implementation Plan (SIP) | Sulfur Dioxide (SO ₂) | ----- |
| A.16 | 40 CFR Part 51 | SIP | Lead | ----- |
| A.17 | 40 CFR Part 52, Subpart BB | Montana SIP | General | ----- |
| A.18 | 40 CFR Part 63, Subpart TTT | Lead MACT | Lead | 500 grams/Mgram |
| A.19 | 40 CFR Part 60, Subpart R | NSPS for Primary Lead Smelters Affected Facility - § 60.181(f) | Particulate Matter; Visible Emissions | 0.022 gr/dscf; 20% |
| A.20 | Lead SIP Section 3(C)(6) | Public Access Restriction | Public Access | Fencing, Other Suitable Barrier, or Signs Discouraging Public Access |
| A.21 | Lead SIP Section 8(B)(4) and Section 9(C)(4) | Quarterly Determination, Recordkeeping, and Reporting Requirements | Hours of Acid Plant Operation | ----- |

Conditions

- A.1. Pursuant to ARM 17.8.304(1), ASARCO shall not cause or authorize emissions to be discharged into the outdoor atmosphere from any source installed on or before November 23, 1968, that exhibit an opacity of 40% or greater averaged over 6 consecutive minutes, unless otherwise specified by rule or in this permit.

- A.2. Pursuant to ARM 17.8.304(2), ASARCO shall not cause or authorize emissions to be discharged into the outdoor atmosphere from any source installed after November 23, 1968, that exhibit an opacity of 20% or greater averaged over 6 consecutive minutes, unless otherwise specified by rule or in this permit.
- A.3. Pursuant to ARM 17.8.308(1), ASARCO shall not cause or authorize the production, handling, transportation, or storage of any material unless reasonable precautions to control emissions of particulate matter are taken. Such emissions of airborne particulate matter from any stationary source shall not exhibit an opacity of 20% or greater averaged over 6 consecutive minutes, unless otherwise specified by rule or in this permit.
- A.4. Pursuant to ARM 17.8.308(2), ASARCO shall not cause or authorize the use of any street, road or parking lot without taking reasonable precautions to control emissions of airborne particulate matter, unless otherwise specified by rule or in this permit.
- A.5. Pursuant to ARM 17.8.308, ASARCO shall not operate a construction site or demolition project unless reasonable precautions are taken to control emissions of airborne particulate matter. Such emissions of airborne particulate matter from any stationary source shall not exhibit an opacity of 20% or greater averaged over 6 consecutive minutes, unless otherwise specified by rule or in this permit.
- A.6. Pursuant to ARM 17.8.309, unless otherwise specified by rule or in this permit, ASARCO shall not cause or authorize particulate matter caused by the combustion of fuel to be discharged from any stack or chimney into the outdoor atmosphere in excess of the maximum allowable emissions of particulate matter for existing fuel-burning equipment and new fuel-burning equipment calculated using the following equations:

For existing fuel-burning equipment (installed before November 23, 1968): $E = 0.882 * H^{-0.1664}$

For new fuel-burning equipment (installed on or after November 23, 1968): $E = 1.026 * H^{-0.233}$

Where H is the heat input capacity in million BTU (MMBtu) per hour and E is the maximum allowable particulate emission rate in pounds per MMBtu.

- A.7. Pursuant to ARM 17.8.310, unless otherwise specified by rule or in this permit, ASARCO shall not cause or authorize particulate matter to be discharged from any operation, process, or activity into the outdoor atmosphere in excess of the maximum hourly allowable emissions of particulate matter calculated using the following equations:

For process weight rates up to 30 tons per hour: $E = 4.10 * P^{0.67}$

For process weight rates in excess of 30 tons per hour: $E = 55.0 * P^{0.11} - 40$

Where E is the rate of emissions in pounds per hour and P is the process weight rate in tons per hour.

- A.8. Pursuant to ARM 17.8.322(4), ASARCO shall not burn liquid or solid fuels containing sulfur in excess of 1 pound per MMBtu fired, unless otherwise specified by rule or in this permit.
- A.9. Pursuant to ARM 17.8.322(5), ASARCO shall not burn any gaseous fuel containing sulfur compounds in excess of 50 grains per 100 cubic feet of gaseous fuel, calculated as hydrogen sulfide at standard conditions, unless otherwise specified by rule or in this permit.

- A.10. Pursuant to ARM 17.8.324(3), ASARCO shall not load or permit the loading of gasoline into any stationary tank with a capacity of 250 gallons or more from any tank truck or trailer, except through a permanent submerged fill pipe, unless such tank is equipped with a vapor loss control device or is a pressure tank as described in ARM 17.8.324(1), unless otherwise specified by rule or in this permit.
- A.11. Pursuant to ARM 17.8.324, unless otherwise specified by rule or in this permit, ASARCO shall not place, store or hold in any stationary tank, reservoir or other container of more than 65,000-gallon capacity any crude oil, gasoline or petroleum distillate having a vapor pressure of 2.5 pounds per square inch absolute or greater under actual storage conditions, unless such tank, reservoir or other container is a pressure tank maintaining working pressure sufficient at all times to prevent hydrocarbon vapor or gas loss to the atmosphere, or is designed and equipped with a vapor loss control device, properly installed, in good working order and in operation.
- A.12. Pursuant to ARM 17.8.324, unless otherwise specified by rule or in this permit, ASARCO shall not use any compartment of any single or multiple-compartment oil-effluent water separator which compartment receives effluent water containing 200 gallons a day or more of any petroleum product from any equipment processing, refining, treating, storing or handling kerosene or other petroleum product of equal or greater volatility than kerosene, unless such compartment is equipped with a vapor loss control device, constructed so as to prevent emission of hydrocarbon vapors to the atmosphere, properly installed, in good working order and in operation.
- A.13. On or before January 31 and July 31 of each year, ASARCO shall submit to the Department the compliance monitoring reports required by Section V.D. These reports must contain all information required by Section V.D, as well as the information required by each individual emission unit. For the reports due by January 31 of each year, ASARCO may submit a single report provided that it contains all the information required by Section V.B and V.D. Per ARM 17.8.1207,

*any application form, report, or compliance certification submitted pursuant to ARM Title 17, Chapter 8, Subchapter 12 (including semiannual monitoring reports), shall contain certification by a responsible official of truth, accuracy and completeness. This certification and any other certification required under ARM Title 17, Chapter 8, Subchapter 12, shall state that, “**based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate and complete.**”*

- A.14. By January 31 of each year, ASARCO shall submit to the Department the compliance certification report required by Section V.B. The annual certification report required by Section V.B must include a statement of compliance based on the information available that identifies any observed, documented or otherwise known instance of noncompliance for each applicable requirement. Per ARM 17.8.1207,

*any application form, report, or compliance certification submitted pursuant to ARM Title 17, Chapter 8, Subchapter 12 (including annual certifications), shall contain certification by a responsible official of truth, accuracy and completeness. This certification and any other certification required under ARM Title 17, Chapter 8, Subchapter 12, shall state that, “**based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate and complete.**”*

- A.15. ASARCO shall satisfy the emission limitations, testing, monitoring, recordkeeping, and reporting requirements of the SO₂ emission control plan effectuated by Board of Environmental Review Order, March 18, 1994, and associated Stipulations, Exhibits, and Attachments. The SO₂ emission control plan demonstrates compliance with the Primary SO₂ NAAQS.
- A.16. ASARCO shall satisfy all of the requirements, including emission limitations, testing, monitoring, record-keeping, NDO, flowrate, and reporting requirements of the Lead emission control plan effectuated by Board of Environmental Review Orders and associated Stipulations, Exhibits, and Attachments dated: August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; and September 15, 2000. The Lead emission control plan demonstrates compliance with the Lead NAAQS.
- A.17. Pursuant to 40 CFR Part 52, Subpart BB, ASARCO is subject to the requirements of the "Implementation Plan for Control of Air Pollution in Montana (Montana SIP). Requirements contained in the Montana SIP are the underlying applicable requirements used to establish Title V permit conditions.
- A.18. On or before May 4, 2001, ASARCO shall achieve compliance with 40 CFR Part 63, Subpart TTT, National Emission Standards for Hazardous Air Pollutants for Primary Lead Smelting (Lead MACT) (64 FR 30204, June 4, 1999). Requirements contained in the Lead MACT are the underlying applicable requirements used to establish Title V permit conditions.
- A.19. ASARCO shall satisfy the emission limitations, testing, monitoring, recordkeeping, and reporting requirements of 40 CFR Part 60, Subpart R (NSPS for Primary Lead Smelters), for the affected facility "Dross Reverberatory Furnace" (§ 60.181(f).) ASARCO shall also satisfy all applicable requirements of 40 CFR Part 60, Subpart A, General Provisions.
- A.20. ASARCO shall maintain a fence or other barrier sufficient to restrict public access to the area described in attachment 4 of the Lead SIP. This area was not considered ambient air in the July 1995 compliance demonstration. Where fencing or other barriers are not feasible due to continual removal by natural causes (e.g., flooding creek bed), then ASARCO shall be responsible for maintaining signs to discourage public access (Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000).
- A.21 ASARCO shall determine, record, and report the quarterly operating hours for the Acid Plant (Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000).

SO₂ SIP CONDITIONS

B. SO₂ SIP Bubbled Emissions

EU022 - Sinter Plant Stack (7P)

EU020 - Acid Plant Stack (8P)

EU045 - Blast Furnace Stack (16P)

EU008 - CSHB Stack (6P)

EU012 - #7 Sinter Plant Roof Baghouse Stack (3Pa)

EU015 - Cottrell Penthouse (7V)

EU017 - Mist Precipitator Building (24V)

EU018 - Pump Tank Building (26V)

EU016 - Acid Plant Scrubber Towers (27V)

EU014 - #8 Sinter Plant Roof Baghouse Stack (4Pa)

| Condition(s) | Pollutant / Parameter | Permit / SIP Limit | Compliance Demonstration Method | Frequency | Reporting Requirements |
|---|--|---|---------------------------------|-----------|------------------------|
| B.1, B.19, B.29, B.31, B.33, B.34, B.35 | Maximum Daily Acid Plant Stack SO ₂ | 4.3 tons per day | CEMS | Daily | Quarterly |
| B.2, B.19, B.29, B.31, B.33, B.34, B.35 | Maximum Daily Sinter Plant Stack SO ₂ | 60.27 tons per day | CEMS | Daily | Quarterly |
| B.3, B.19, B.29, B.31, B.33, B.34, B.35 | Maximum Daily Blast Furnace Stack SO ₂ | 29.64 tons per day | CEMS | Daily | Quarterly |
| B.4, B.19, B.29, B.31, B.33, B.34, B.35 | Daily Blast Furnace Stack SO ₂ Emission Limit (B), when the Daily Sinter Plant SO ₂ Emissions (S) are ≤ 22.93 tons per day. | Daily SO ₂ emissions from the Blast Furnace stack shall not exceed B = 29.64 - (0.180)(S) , where S is the daily SO ₂ emissions from the Sinter Plant Stack, and B is the allowed daily SO ₂ emissions from the Blast Furnace Stack. | CEMS | Daily | Quarterly |
| B.5, B.19, B.29, B.31, B.33, B.34, B.35 | Daily Blast Furnace Stack SO ₂ Emission Limit (B), when Daily Sinter Plant SO ₂ Emissions (S) are > 22.93 tons per day, but ≤ 54.54 tons per day. | Daily SO ₂ emissions from the Blast Furnace stack shall not exceed B = 38.74 - (0.577)(S) , where S is the daily SO ₂ emissions from the Sinter Plant Stack, and B is the allowed daily SO ₂ emissions from the Blast Furnace Stack. | CEMS | Daily | Quarterly |
| B.6, B.19, B.29, B.31, B.33, B.34, B.35 | Daily Blast Furnace Stack SO ₂ Emission Limit (B) when Daily Sinter Plant SO ₂ Emissions (S) are > 54.54 tons per day. | Daily SO ₂ emissions from the Blast Furnace stack shall not exceed B = 76.60 - (1.271)(S) , where S is the daily SO ₂ emissions from the Sinter Plant Stack, and B is the allowed daily SO ₂ emissions from the Blast Furnace Stack. | CEMS | Daily | Quarterly |
| B.7, B.20, B.29, B.34, B.35 | Minimum Quarterly Data Recovery Rate (QDRR) for each CEMS | 94% as determined by Equation A-03 | SO ₂ Control Plan | Quarterly | Quarterly |

| | | | | | |
|------------------------------------|---|--|---------------------------------|-----------|-------------|
| B.8, B.21, B.29, B.34, B.35 | Continuous Emission Monitoring Systems | ASARCO shall install, operate, and maintain continuous emission monitors (CEMS) on the Acid Plant Stack, the Sinter Plant Stack, and the Blast Furnace Stack. | SO ₂ Control Plan | Ongoing | Annual |
| B.9, B.22, B.29, B.34, B.35 | Best Efforts QDRR | Asarco shall undertake its best efforts to strive for and achieve the highest QDRR practical. A QDRR value less than 100%, but such that $94\% \leq \text{QDRR} < 100\%$, may be practical, consistent with Part I, Section 4, subsection (C), Exhibit A, SO ₂ Stipulation | SO ₂ Control Plan | Quarterly | Quarterly |
| B.10, B.23, B.29, B.34, B.35 | CEMS Derived Hourly Emission Rate (tons per hour) | Hourly Average SO ₂ Concentration (PPM) X Hourly Average Stack Gas Flow Rate (scfm) X $[4.98 \times 10^{-9}]$ = Equation A-01 | SO ₂ Control Plan | Quarterly | Quarterly |
| B.11, B.23, B.29, B.34, B.35 | Daily Emissions (tons per day) | As determined by using Equation A-02, Table 1, and Appendix A-1 of SO ₂ Control Plan | SO ₂ Control Plan | Quarterly | Quarterly |
| B.12, B.24, B.30, B.34, B.35 | Sinter Plant Stack Surrogate Hourly SO ₂ Emission Rate | Equation 1 of Appendix A-1 of SO ₂ Control Plan | SO ₂ Control Plan | Quarterly | Quarterly |
| B.13, B.24, B.30, B.34, B.35 | Blast Furnace Stack Surrogate Hourly SO ₂ Emission Rate | Equation 2 of Appendix A-1 of SO ₂ Control Plan | SO ₂ Control Plan | Quarterly | Quarterly |
| B.14, B.25, B.31, B.33, B.35 | Maximum Daily CSHB Stack SO ₂ | 0.552 tons per day | SO ₂ Control Plan | 2 years | Semi-annual |
| B.15, B.26, B.31, B.33, B.35 | #7 Sinter Plant Roof Baghouse Stack (3Pa) SO ₂ | 0.19 tons per calendar day | SO ₂ Control Plan | 5 Years | Semi-annual |
| B.16, B.27, B.31, B.33, B.35 | #8 Sinter Plant Roof Baghouse Stack (4Pa) SO ₂ | 0.37 tons per calendar day | SO ₂ Control Plan | 2 Years | Semi-annual |

| | | | | | |
|---------------------------|---|--|------------------------------|---|---|
| B.17, B.28, B.32, B.35 | No Degradation of Processes and Systems | ASARCO shall maintain and operate all processes and systems within the Cottrell Penthouse (7V), Mist Precipitator Building (24V), and the Pump Tank Building (26V), such that conditions that contribute to volume source sulfur dioxide emissions from these sources are not significantly degraded compared to conditions existing during the preparation of the January 20, 1992, report entitled "SO ₂ Emission Inventory, ASARCO Primary Lead Smelter, East Helena, Montana" | SO ₂ Control Plan | 7V & 26V: Annual Certification 24V: Record Keeping and Annual Certification | 7V & 26V: Annual Certification 24V: Record Keeping and Annual Certification |
| | | | SO ₂ Control Plan | 24V: 5 Years | 24V: Annual Certification |
| B.18, B.28, B.32, B.35 | No Degradation of Processes and Systems | ASARCO shall maintain and operate all processes and systems within the Acid Plant Scrubber Towers (27V), such that conditions which contribute to volume source sulfur dioxide emissions from these sources are not significantly degraded compared to conditions existing during the preparation of the January 20, 1992, report entitled "SO ₂ Emission Inventory, ASARCO Primary Lead Smelter, East Helena, Montana" | SO ₂ Control Plan | Annual Cert. | Annual Cert. |

Conditions

- B.1. ASARCO shall not cause or authorize daily emissions of sulfur dioxide (SO₂) to be discharged to the atmosphere from the Acid Plant Stack (8P) that exceed 4.3 tons per calendar day (Primary SO₂ NAAQS - Board of Environmental Review Order - March 18, 1994).
- B.2. ASARCO shall not cause or authorize daily emissions of sulfur dioxide (SO₂) to be discharged to the atmosphere from the Sinter Plant Stack (7P) that exceed 60.27 tons per calendar day (Primary SO₂ NAAQS - Board of Environmental Review Order - March 18, 1994).
- B.3. ASARCO shall not cause or authorize daily emissions of sulfur dioxide (SO₂) to be discharged to the atmosphere from the Blast Furnace Stack (16P) that exceed 29.64 tons per calendar day (Primary SO₂ NAAQS - Board of Environmental Review Order - March 18, 1994).
- B.4. ASARCO shall not cause or authorize daily emissions of sulfur dioxide (SO₂) to be discharged to the atmosphere from the Blast Furnace Stack (16P) that exceed the amount determined by the equation $B = 29.64 - (0.180)(S)$, where S is the daily SO₂ emissions from the Sinter Plant Stack and B is the daily SO₂ emissions from the Blast Furnace Stack, when Sinter Plant SO₂ Emissions (S) are ≤ 22.93 tons per calendar day (Primary SO₂ NAAQS - Board of Environmental Review Order - March 18, 1994).
- B.5. ASARCO shall not cause or authorize daily emissions of sulfur dioxide (SO₂) to be discharged to the atmosphere from the Blast Furnace Stack (16P) that exceed the amount determined by the equation $B = 38.74 - (0.577)(S)$, where S is the daily SO₂ emissions from the Sinter Plant Stack and B is the

daily SO₂ emissions from the Blast Furnace Stack, when Sinter Plant SO₂ Emissions (S) are > 22.93 tons per day, but ≤ 54.54 tons per calendar day (Primary SO₂ NAAQS - Board of Environmental Review Order - March 18, 1994).

- B.6. ASARCO shall not cause or authorize daily emissions of sulfur dioxide (SO₂) to be discharged to the atmosphere from the Blast Furnace Stack (16P) that exceed the amount determined by the equation $B = 76.60 - (1.271)(S)$, where S is the daily SO₂ emissions from the Sinter Plant Stack and B is the daily SO₂ emissions from the Blast Furnace Stack, when Sinter Plant SO₂ Emissions (S) are > 54.54 tons per calendar day (Primary SO₂ NAAQS - Board of Environmental Review Order - March 18, 1994).
- B.7. ASARCO shall not cause or authorize a quarterly data recovery rate (QDRR), from the continuous emission monitors used to determine SO₂ emissions, of less than 94% for each monitor (Primary SO₂ NAAQS - Board of Environmental Review Order - March 18, 1994).

Nothing in this section shall preclude enforcement action for a QDRR that is less than 100 percent, but equal to or greater than 94 percent, if the conditions in Part I, Section 3, subsection F, of the Primary SO₂ NAAQS - Board of Environmental Review Order - March 18, 1994, are not satisfied.

- B.8. ASARCO shall install, operate, and maintain continuous emission monitors (CEMS) on the Acid Plant Stack, the Sinter Plant Stack, and the Blast Furnace Stack to measure the sulfur dioxide emissions from those sources on an ongoing basis (Primary SO₂ NAAQS - Board of Environmental Review Order - March 18, 1994).
- B.9. ASARCO shall undertake its best efforts to strive for and achieve the highest QDRR, which is practical. Whether a QDRR that is greater than or equal to 94%, but less than 100%, is practical shall be determined consistent with Part I, Section 4, Subsection C, Exhibit A (Primary SO₂ NAAQS - Board of Environmental Review Order - March 18, 1994).
- B.10. ASARCO shall determine CEMS-derived hourly SO₂ emission rates for the Sinter Plant, Acid Plant, and Blast Furnace Stacks as prescribed by Equation A-01 of the SO₂ Control Plan Requirements. Equation A-01 is derived from conversion factors based upon the wet measurement of SO₂ and stack flow rate. If concentrations and stack gas flow rates are determined on a dry-basis, a different equation must be used to determine emissions of SO₂, and the equation used must be approved by the Department (Primary SO₂ NAAQS - Board of Environmental Review Order - March 18, 1994).
- B.11. ASARCO shall determine the daily emissions of SO₂ from the Sinter Plant, Acid Plant, and Blast Furnace Stacks by using Equation A-02, Table 1, and Appendix A-1, of the SO₂ Control Plan Requirements (Primary SO₂ NAAQS - Board of Environmental Review Order - March 18, 1994).
- B.12. ASARCO shall determine the Sinter Plant Stack Surrogate hourly SO₂ emission rate by using Equation 1 of Appendix A-1, and determining sulfur content in new material feed to the sinter machine in accordance w/ Appendix A-1, of the SO₂ Control Plan Requirements (Primary SO₂ NAAQS - Board of Environmental Review Order - March 18, 1994).
- B.13. ASARCO shall determine the Blast Furnace Stack Surrogate hourly SO₂ emission rate by using Equation 2 of Appendix A-1, and determining sulfur content in Sinter charged to the Blast Furnace in accordance w/ Appendix A-1, of the SO₂ Control Plan Requirements (Primary SO₂ NAAQS - Board of Environmental Review Order - March 18, 1994).

- B.14. ASARCO shall not cause or authorize daily emissions of SO₂ to be discharged to the atmosphere from the CSHB Stack (including the exhaust from the new SPVS baghouse) that exceed 46 pounds per hour or 0.552 tons per Calendar Day (Primary SO₂ NAAQS - Board of Environmental Review Order - March 18, 1994).
- B.15. ASARCO shall not cause or authorize daily emissions of SO₂ to be discharged to the atmosphere from the #7 Sinter Plant Roof Baghouse Stack (3Pa) (Crushing Mill Baghouse Stack #1) that exceed 0.19 tons per Calendar Day (Primary SO₂ NAAQS - Board of Environmental Review Order - March 18, 1994).
- B.16. ASARCO shall not cause or authorize daily emissions of SO₂ to be discharged to the atmosphere from the #8 Sinter Plant Roof Baghouse Stack (4Pa) (Crushing Mill baghouse Stack #2) that exceed 0.37 tons per Calendar Day (Primary SO₂ NAAQS - Board of Environmental Review Order - March 18, 1994).
- B.17. ASARCO shall maintain and operate all processes and systems within the Cottrell Penthouse (7V), Mist Precipitator Building (24V), and the Pump Tank Building (26V) such that conditions which contribute to volume source sulfur dioxide emissions from these sources are not significantly degraded compared to conditions existing during the preparation of the January 20, 1992, report entitled "SO₂ Emission Inventory, ASARCO Primary Lead Smelter, East Helena, Montana" (Primary SO₂ NAAQS - Board of Environmental Review Order - March 18, 1994).
- B.18. ASARCO shall maintain and operate all processes and systems within the Acid Plant Scrubber Towers (27V) such that conditions which contribute to volume source sulfur dioxide emissions from these sources are not significantly degraded compared to conditions existing during the preparation of the January 20, 1992, report entitled "SO₂ Emission Inventory, ASARCO Primary Lead Smelter, East Helena, Montana" (Primary SO₂ NAAQS - Board of Environmental Review Order - March 18, 1994).

Compliance Demonstration

- B.19. ASARCO shall monitor compliance with the requirements of B.1, B.2, B.3, B.4, B.5, and B.6 by using data from the CEMS as required by Part I, Sections 4, 5, and 6 of the SO₂ Control Plan Requirements. When less than 24 and greater than or equal to 20 CEMS-Derived Hourly Emission Rates are available for a Calendar Day compliance shall be determined through the use of Equation A-02 in Exhibit A. When less than 20 CEMS-Derived Hourly Emission Rates are available for a Calendar Day, compliance with the requirements of B.2, B.3, B.4, B.5, and B.6, as appropriate, shall be determined through the use of CEMS-Derived Hourly Emission Rates, Surrogate Hourly Emission Rates for those operating hours when CEMS-Derived emission rates are unavailable, and De Minimis Hourly Emission Rates for those hours other than Operating Hours when CEMS-Derived Hourly Emission Rates are unavailable (Primary SO₂ NAAQS Stipulation – March 18, 1994).
- B.20. ASARCO shall monitor compliance with the minimum QDRR requirement of B.7 by using Equation A-03 (SO₂ Control Plan Requirements) and data from the CEMS as required by Part I, Sections 4, 5, and 6, in the SO₂ Control Plan (Primary SO₂ NAAQS Stipulation – March 18, 1994).
- B.21. ASARCO shall monitor compliance with requirement B.8 by satisfying the requirements of Part I, Section 6, of the SO₂ Control Plan (Primary SO₂ NAAQS Stipulation – March 18, 1994).
- B.22. ASARCO shall monitor compliance with requirement B.9 by satisfying the requirements of Part I, Section 4, of the SO₂ Control Plan (Primary SO₂ NAAQS Stipulation – March 18, 1994).

- B.23. ASARCO shall monitor compliance with requirements B.10 and B.11 by satisfying the requirements of Part I, Sections 2 and 7, of the SO₂ Control Plan (Primary SO₂ NAAQS Stipulation – March 18, 1994).
- B.24. ASARCO shall monitor compliance with requirements B.12 and B.13 by satisfying the requirements of Part I, Section 2, Section 7, and Appendix A-1, of the SO₂ Control Plan (Primary SO₂ NAAQS Stipulation – March 18, 1994).
- B.25. ASARCO shall monitor compliance with B.14 by performing the testing required in Part I, Section 5(E), of the SO₂ Control Plan. The testing shall be performed once every 2 years, or more frequently upon the request of the Department (Primary SO₂ NAAQS Stipulation – March 18, 1994).
- B.26. ASARCO shall monitor compliance with B.15 by performing the testing required in Part I, Section 5(F), of the SO₂ Control Plan. The testing shall be performed once every 5 years, or more frequently upon the request of the Department (Primary SO₂ NAAQS Stipulation – March 18, 1994).
- B.27. ASARCO shall monitor compliance with B.16 by performing the testing required in Part I, Section 5(F), of the SO₂ Control Plan. The testing shall be performed once every 2 years, or more frequently upon the request of the Department (Primary SO₂ NAAQS Stipulation – March 18, 1994).
- B.28. ASARCO shall not be required to perform periodic testing to monitor compliance with B.17 and B.18. Monitoring compliance with B.17 and B.18 for the Mist Precipitator Building (24V) shall be accomplished through recordkeeping. ASARCO shall maintain detailed records of maintenance activities performed for the Mist Precipitator Building (24V). Further, ASARCO shall certify annually compliance with B.17 and B.18 for sources 7V, 24V, 26V, and 27V (Primary SO₂ NAAQS Stipulation – March 18, 1994).

Recordkeeping

- B.29. ASARCO shall maintain all data collected by the CEMS required by B.8 such that they are able to monitor compliance with requirements B.1 through B.11 of this permit. All CEMS data shall be maintained on site by ASARCO for at least 5 years after the date of data generation. This electronic data shall be made available to Department personnel upon request and shall be submitted to the Department consistent with Part I, Section 7, of the SO₂ Control Plan (Primary SO₂ NAAQS Stipulation – March 18, 1994).
- B.30. ASARCO shall maintain all Surrogate Hourly Emission Rates for those operating hours without CEMS data, as well as all sampling and analysis data necessary to generate the Surrogate Hourly SO₂ Emission rates required by B.12 and B.13, consistent with Part I, Section 7, of the SO₂ Control Plan (Primary SO₂ NAAQS Stipulation – March 18, 1994).
- B.31. All source testing recordkeeping shall be performed in accordance with the test method being used and the Montana Source Test Protocol and Procedures Manual. Recordkeeping compiled for purposes of demonstrating compliance with emission limitations shall be retained by ASARCO for a minimum of 5 years.
- B.32. ASARCO shall maintain all data necessary such that they are able to certify compliance with requirements B.17 and B.18 of this permit. All pertinent data shall be maintained on site by ASARCO for at least 5 years after the date of data generation. This data shall be made available to Department personnel upon request (Primary SO₂ NAAQS Stipulation – March 18, 1994).

Reporting

- B.33. All source test reports shall be submitted to the Department in accordance with the Montana Source Test Protocol and Procedures Manual.
- B.34. Consistent with Part I, Section 7, Exhibit A (SO₂ Control Plan Requirements), ASARCO shall submit quarterly reports within 30 days of the end of each calendar quarter. The quarterly reports shall be submitted to the Department's Permitting and Compliance office in Helena. The quarterly report format shall consist of both a comprehensive electronic-magnetic report and a written or hard copy data summary report.
- B.35. The annual compliance certification report required by Section V.B must contain a certification statement for the above applicable requirements. The semiannual reporting shall provide:
- Verification that CEMS quarterly reports were submitted as required by Section III.B.34; and
 - A summary of the results of any source tests performed during the period.

LEAD MACT CONDITIONS

C. Lead MACT Process & Process Fugitive Sources

| | | | |
|---|-----|--|-----|
| EU039 - Blast Furnace #1 | 16P | EU021 - Sinter Plant Weak Gas - Cyclone | 7P |
| EU040 - Blast Furnace #3 | 16P | EU022 - Sinter Plant Weak Gas - Baghouse | 7P |
| EU041 - Blast Furnace Tapping Platform | 16P | EU010 - Sinter Plant Ventilation System | 6P |
| EU062 - Dross Plant Kettle #4 | 21P | EU011 - Sinter Plant Roof | 3Pa |
| EU063 - Dross Plant #4 Launder | 21P | EU013 - Sinter Plant Roof | 4Pa |
| EU064 - Dross Plant Reverberatory Furnace | 21P | EU019 - Sinter Plant Strong Gas - Acid Plant | 8P |
| EU065 - Dross Plant Reverberatory Furnace Charge Hole | 21P | EU015 - Sinter Plant Strong Gas - Hot Cottrell | 8P |
| EU066 - Dross Plant Speiss/Matte Tap | 21P | | |
| EU067 - Dross Plant Speiss/Matte Launder | 21P | | |

| Condition(s) | Pollutant / Parameter | Permit Limit | Compliance Method | Demonstration Frequency | Reporting Requirements |
|-----------------------------|----------------------------|---|-------------------------------------|--|---|
| C.1, C.10, C.11, C.20, C.28 | Lead Compounds | 500 grams (of lead) per megagram of lead metal produced from the aggregation of emissions from air pollution control devices. | Method 12 40 CFR Part 63.1546(a) | Annual (No more than 12 calendar months from any previous compliance test.) | Annual |
| | | | | If the three most recent compliance tests monitor compliance with this MACT limit, then 24 calendar months from the last compliance testing. | Annual, based upon any updated testing information conducted for purposes of this permit, or the Lead SIP |
| C.2, C.12, C.21, C.28 | Bag leak detection system. | Install, maintain, and operate on each baghouse used to control emissions and to provide ventilation. | Lead MACT, Baghouse I&M Program | Lead MACT, Baghouse I&M Program | Semi annual |

| Condition(s) | Pollutant / Parameter | Permit Limit | Compliance Demonstration Method Frequency | | Reporting Requirements |
|-----------------------|--|---|--|--|------------------------|
| C.3, C.13, C.22, C.28 | Bag leak detection system alarm. | Alarm sounds \leq 5% of the total operating time in a 6-month reporting period. | Lead MACT, Baghouse I&M Program | Lead MACT, Baghouse I&M Program | Semi annual |
| C.4, C.14, C.22, C.28 | Baghouse SOP | ASARCO shall prepare, submit for approval, and at all times operate according to a Baghouse SOP. | Lead MACT, Baghouse I&M Program | Lead MACT, Baghouse I&M Program | Semi annual |
| C.5, C.15, C.23, C.28 | Process Fugitive Source Ventilation | Equipped with a ventilation (emission control) hood designed to be consistent w/ the American Conference of Governmental Industrial Hygienists recommended practices. | Lead Control Plan, Lead MACT | Lead Control Plan, Lead MACT | Annual Certification |
| C.6, C.16, C.24, C.28 | Hood Ventilation Rate | Consistent w/ the American Conference of Governmental Industrial Hygienists recommended practices. | Lead Control Plan, Lead MACT | Lead Control Plan, Lead MACT | Annual Certification |
| C.7, C.17, C.25, C.28 | Sinter Machine Area | Enclose in (Ventilated) Building | SO ₂ Control Plan Lead Control Plan Primary Lead MACT | SO ₂ Control Plan Lead Control Plan Primary Lead MACT | Annual Certification |
| C.8, C.18, C.26, C.28 | Sinter Machine Building Ventilation | Emissions captured by the Sinter Plant Ventilation System (SPVS) and the Sinter Plant Roof Ventilation controlled by a baghouse or equivalent control device. | Lead Control Plan, Lead MACT | Lead Control Plan, Lead MACT | Annual Certification |
| C.9, C.19, C.27, C.28 | Sinter Machine Building Ventilation Rate | Positive In-draft through any doorway opening | Lead Control Plan, Lead MACT Initial Test | Lead Control Plan, Lead MACT 05/04/2001 | Annual |

Conditions

- C.1. ASARCO shall not cause or authorize emissions of lead compounds in excess of 500 grams of lead per megagram of lead metal produced from the aggregation of emissions from air pollution control devices used to control emissions from the emission units listed in this Section C (ARM 17.8.342 & 40 CFR Part 63, Subpart TTT).
- C.2. ASARCO shall install, operate on an ongoing basis, and maintain a bag leak detection system on each baghouse used to control emissions on the process and process fugitive sources identified in this section (40 CFR 63.1547(c)(9)).

- C.3. ASARCO shall maintain and operate each baghouse used to control emissions from process and process fugitive sources identified in this section such that the alarm on a bag leak detection system required under §63.1547(c)(9) does not sound for more than 5% of the total operating time in a 6-month reporting period (40 CFR 63.1543(f)).
- C.4. ASARCO shall prepare, submit for approval, and at all times operate according to a Baghouse Standard Operating Procedures (SOP) Manual that shall include procedures for inspection, maintenance, bag leak detection device operation, and corrective action plan for all MACT affected baghouses; the Baghouse SOP shall, at a minimum, satisfy all the requirements of §63.1547(c) - (g). (40 CFR 63.1547).
- C.5. ASARCO shall equip all of the process fugitive sources from §63.1543(a)(4) through (a)(8) with a hood that is ventilated to a baghouse, and designed to be consistent with the American Conference of Governmental Industrial Hygienists recommended practices. (40 CFR 63.1543(b)).
- C.6. ASARCO shall operate all process fugitive hoods with a ventilation rate that is consistent with the American Conference of Governmental Industrial Hygienists recommended practices (40 CFR 63.1543(b)).
- C.7. ASARCO shall enclose the Sinter Machine area in a building (40 CFR 63.1543(c)).
- C.8. ASARCO shall ventilate the Sinter Machine area building with baghouse(s) or equivalent control device(s) (40 CFR 63.1543(c)).
- C.9. ASARCO shall operate the baghouse(s) ventilating the building that encloses the Sinter Machine area such that a positive in-draft through any doorway opening is maintained (40 CFR 63.1543(c)).

Compliance Demonstration

- C.10 ASARCO shall perform at least one test annually on the emissions from the process and process fugitive air pollution control devices, controlling emissions from the emission listed in this Section C, to determine the lead compound emission rate as prescribed in §63.1546(a), except that the compliance testing must be performed no later than 12 calendar months following any previous compliance testing (40 CFR 63.1543(d)).
- C.11. ASARCO shall be allowed up to 24 calendar months from the last compliance test to conduct the next compliance test for lead compounds, if the three most recent compliance tests monitor compliance with the emission limit of §63.1543(a), except that annual or more frequent compliance testing of specific emitting units may occur as necessary to monitor compliance with other applicable requirements of this permit.
- C.12. ASARCO shall monitor compliance with C.2 by installing, operating on an ongoing basis, and maintaining the bag leak detection systems required by §63.1547(c)(9), in accordance with the Baghouse Inspection and Maintenance Program to satisfy all of the requirements identified in §63.1547(e-f).
- C.13. ASARCO shall monitor compliance with the bag leak detection system requirement in C.3 by satisfying the requirements and procedures in §63.1547(e) and (g), in accordance with the Baghouse Inspection and Maintenance Program.
- C.14. ASARCO shall monitor compliance with C.4 by submitting a Baghouse SOP Manual for review and approval, which shall satisfy all the requirements of §63.1547(c) - (g), §63.1549, and the Primary Lead MACT and Baghouse Inspection and Maintenance Program; operating according to the Baghouse SOP Manual, and performing the monitoring and recordkeeping required by the SOP, and the Primary Lead MACT and Baghouse Inspection and Maintenance Program.

- C.15. ASARCO shall monitor compliance with the ventilation requirement of C.5 by installing and maintaining ventilation hoods on process fugitive sources that are designed to conform with the American Conference of Governmental Industrial Hygienists recommended practices, and 40 CFR Part 63, Subpart TTT, National Emission Standards for Hazardous Air Pollutants for Primary Lead Smelting (Lead MACT).
- C.16. ASARCO shall monitor compliance with the hood ventilation rate requirement of C.6 by operating ventilation hoods on process fugitive sources at a sufficient ventilation rate to conform with the American Conference of Governmental Industrial Hygienists recommended practices, and the Lead Control Plan and the Primary Lead MACT.
- C.17. ASARCO shall monitor compliance with the Sinter Machine Area Enclosure requirement of C.7 by satisfying the NDO requirements of the SO₂ Control Plan and the Lead Control Plan.
- C.18. ASARCO shall monitor compliance with the Sinter Machine Area Ventilation requirement of C.8 by operating and maintaining the SPVS baghouse and the Sinter Plant Roof Baghouses required by the Lead Control Plan and the Primary Lead MACT.
- C.19. ASARCO shall monitor compliance with the Sinter Machine Area Ventilation Rate Requirement of §63.1543(c) and C.9 by satisfying the requirements and procedures of §63.1547(i), except that ASARCO must also satisfy the minimum flow rate requirements identified in the Lead Control Plan and the Primary Lead MACT.

Recordkeeping

- C.20. ASARCO shall maintain on site all testing and production information relevant to determine compliance with the emission limitation prescribed in §63.1543(a) and C.1, including all Method 12 test results and all lead production data as prescribed in §63.1546, for all of the process and process fugitive sources specified in §63.1543(a) and this section. Relevant information that must be maintained shall also satisfy the requirements of §63.1549.
- C.20. ASARCO shall maintain on site all information relevant to the operation and maintenance of each bag leak detection system required by §63.1547(c)(9). Relevant information to be maintained on site must conform to the requirements of the Primary Lead MACT and 40 CFR Part 63, Subpart TTT, §63.1547(e)(4), and §63.1549(b)(2). Information to be maintained shall minimally include baseline level, sensitivity, response time, delay time, alarm levels, response test results, drift check results, sensor inspection and cleaning, repairs, the results of all monthly QA checks for response and drift, and annual instrument set up documentation for all systems.
- C.21. ASARCO shall maintain on site all information consistent with the Primary Lead MACT and 40 CFR Part 63, Subpart TTT, §63.1547(e-g), and §63.1549; ASARCO shall maintain on site all information for each instance that an alarm sounds for the bag leak detection system required by §63.1547(c)(9).
- C.22. ASARCO shall maintain on site all information relevant to the design, installation, and operational parameters of the ventilation hoods required by §63.1543(b) such that compliance with C.5 of this permit may be determined.
- C.23. ASARCO shall maintain on site all information relevant to the operational parameters of the ventilation hoods required by §63.1543(b) such that compliance with C.6 of this permit may be determined.

- C.24. ASARCO shall maintain all information necessary to confirm that the NDO requirements of the SO₂ Control Plan and Primary Lead MACT are satisfied, such that the requirements of §63.1543(c) may be determined.
- C.25. ASARCO shall maintain on site all information relevant to the pollution control device(s) that provide ventilation to the building that encloses the Sinter Machine Area required by §63.1543(c), such that compliance with C.8 of this permit may be determined.
- C.26. ASARCO shall maintain on site all information relevant to the operation of the pollution control device(s) that provide ventilation to the building that encloses the Sinter Machine Area required by §63.1543(c), such that compliance with C.9 of this permit may be determined. Information that must be maintained shall include, but not be limited to, all information required to satisfy §63.1547(i) and §63.1549(b).

Reporting

- C.27. The annual compliance certification report required by Section V.B must contain a certification statement for the above applicable requirements. ASARCO must also comply with all of the reporting requirements of §63.10, subpart A, General Provisions, 40 CFR Part 63. The semiannual reporting shall satisfy the requirements of §63.1549(e) and must also provide:
- a. A summary of all results from source testing conducted in the previous 6 month period;
 - b. The sum of the lead compound emission rates, if the current reporting period is coincident with the reporting period for the requirement of §63.1543(a);
 - c. The lead production rate for the reporting period, as prescribed by §63.1546(a);
 - d. The lead compound emission rate as prescribed by §63.1546(a), in units of grams of lead per megagram of lead metal produced, if the current reporting period is coincident with the reporting period for the requirement of §63.1543(a); and
 - e. The percentage of total operating time the alarms on the bag leak detection systems sound, for each system in use, for the 6-month reporting period as prescribed in §63.1547(e-g) & §63.1549(e)(3).

D. Lead MACT Fugitive Dust Sources

| | | | |
|---|-----|--|-----|
| EU043 - Slag handling Area Fugitives | 11V | EU029 – Direct Smelt Bins | 8Vi |
| EU044 - Slag Pile Dumping Area Fugitives | 12V | EU072 – Speiss/Matte handling | 15V |
| EU047 - Blast Furnace Flue Cleanout | 19V | EU028 – Outdoor Sinter Storage and Sinter Handling | 8Vf |
| EU074 - Unpaved Plant Areas & Roads | 2A | EU076 – Wind Erosion | 1A |
| EU073 - Paved Plant Areas & Roads | 3A | EU075 – Haul Trucks | |
| EU004 - High Grade Building Dumping Area | 4V | | |
| EU048 - Hopto Unloading & Blast Furnace Dust Reclaiming | 2V | | |
| EU006 - Old Ore Storage Yard | 3V | | |

| Condition(s) | Pollutant / Parameter | Limit | Compliance Method | Demonstration Frequency | Reporting Requirements |
|--------------------|-------------------------|--|--|--|------------------------|
| D.1, D.2, D.3, D.4 | Fugitive Dust Emissions | Lead Control Plan, Primary Lead MACT, 40 CFR 63.1544 | Lead Control Plan, Primary Lead MACT, 40 CFR 63.1544 | Lead Control Plan, Primary Lead MACT, 40 CFR 63.1544 | Semi annual |

Conditions

- D.1. ASARCO shall prepare and submit for approval a Standard Operating Procedure Manual (SOP), and operate in conformance with the Standard Operating Procedure Manual to control fugitive dust emissions from sources identified in §63.1544(a). Existing manuals or plans with requirements to control fugitive dust sources, such as a Lead SIP control plan, shall satisfy the requirements of §63.1544(a) provided they address all of the sources addressed in §63.1544. If the current Lead SIP control plan does not address all of the sources identified in §63.1544(a), ASARCO shall prepare and submit for approval a supplementary SOP for those omitted sources.

Compliance Demonstration

- D.2. ASARCO shall monitor compliance with the requirement of D.1 by identifying all of the requirements of the Lead SIP that control fugitive dust emissions (and indicating which of those SIP provisions apply to the sources identified by §63.1544(a)), and then satisfying those applicable Lead SIP control plan requirements and any supplementary SOP.

Recordkeeping

- D.3. ASARCO shall maintain all information required by the Lead Control Plan and Primary Lead MACT such that conformance to the Lead SIP control plan and D.1 of this permit may be determined.

Reporting

- D.4. The annual compliance certification report required by Section V.B must contain a certification statement for the above applicable requirements. ASARCO must also comply with the reporting requirements of §63.10, subpart A, General Provisions, 40 CFR Part 63, as well as the requirements of §63.1549(e)(8) and the Lead SIP. The semiannual reporting shall at a minimum provide:
- A summary of the fugitive dust control measures performed during the required reporting period; and
 - A summary of any periods when procedures were not followed, and any corrective actions taken.

LEAD SIP AND PRECONSTRUCTION PERMIT CONDITIONS

E. EU001 - Sample Mill (1P)

| Condition(s) | Pollutant / Parameter | Permit / SIP Limit | Compliance Demonstration Method Frequency | | Reporting Requirements |
|----------------------------------|----------------------------------|--|--|-------------------------------|------------------------|
| E.1, E.9, E.10, E.16, E.17, E.19 | Opacity | 20% | Method 9 | As Required by the Department | Semi-annual |
| | | | Baghouse I&M | Baghouse I&M | Semi-annual |
| E.2, E.11, E.17, E.19 | Particulate Matter | $E = 4.10 * P^{0.67}$ | Method 5 | As Required by the Department | Semi-annual |
| E.3, E.12, E.17, E.19 | Lead | 0.0204 lb Pb/hr | Method 12 | Every 5 Years | Semi-annual |
| E.4, E.13, E.18, E.19 | Material Processed | Monitor Tons per year of Material Processed | Recordkeeping | Lead Control Plan | Semi-annual |
| E.5, E.10, E.16, E.19 | Emission Control and Ventilation | The Sample Mill Baghouse and associated ventilation equipment shall be used to supply ventilation to and control emissions from the Sample Mill. | Baghouse I&M Program | Baghouse I&M Program | Annual Certification |
| E.6, E.14, E.17, E.19 | Minimum Airflow | Sample Mill Baghouse Airflow ≥ 4800 ACFM | Method 2 | Annual | Semi-annual |
| E.7, E.10, E.16, E.19 | Baghouse Dust Handling | Baghouse dust recovered by Vacuum Truck | Baghouse I&M Program | Baghouse I&M Program | Annual Certification |
| E.8, E.15, E.18, E.19 | Fan Operation | Monitor and Record Hours of Baghouse Fan Operation per Quarter | Installation and operation of monitoring device. | Ongoing | Quarterly |

Conditions

- E.1. ASARCO shall not cause or authorize emissions to be discharged to the atmosphere from the Sample Mill (1P) that exhibit an opacity of 20% or greater averaged over 6 consecutive minutes (Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000).
- E.2. ASARCO shall not cause or authorize emissions of particulate matter from the Sample Mill to be discharged to atmosphere that exceed the value calculated by $E = 4.10 \times P^{0.67}$, where E is the rate of emissions in pounds per hour and P is the process weight rate in tons per hour (ARM 17.8.310).
- E.3. ASARCO shall not cause or authorize emissions of lead to be discharged to the atmosphere from the Sample Mill that exceed 0.0204 lb of lead per hour (Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000).
- E.4. ASARCO shall monitor and record the weight of material processed, in tons per year in §II.D.1(l) of Permit #2557-11).
- E.5. ASARCO shall operate the Sample Mill Baghouse and associated ventilation equipment to provide ventilation for and control emissions from the Sample Mill (Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000).

- E.6. ASARCO shall maintain a minimum airflow of 4800 ACFM through the Sample Mill Baghouse when the Sample Mill is operating (Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000).
- E.7. ASARCO shall utilize a Vacuum Truck, or other means that will minimize emissions, to recover dust captured by the Sample Mill Baghouse from the baghouse hopper (Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000).
- E.8. ASARCO shall monitor and record the hours of the Sample Mill and use a device to monitor and record the Sample Mill Baghouse Fan operation per quarter (Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000).

Compliance Demonstration

- E.9. As required by the Department, ASARCO shall perform a Method 9 test in accordance with the Montana Source Test Protocol and Procedures Manual to monitor compliance with E.1 (ARM 17.8.106). Each observation period shall be a minimum of 6 minutes, unless any one reading is greater than the relevant opacity limit (20%); then the observation period shall be a minimum of 20 minutes or until a violation of the standard has been documented, whichever is a shorter period of time.
- E.10. ASARCO shall, on an ongoing basis, operate and maintain the Sample Mill Baghouse in accordance with the Baghouse Inspection and Maintenance Program.
- E.11. As required by the Department, ASARCO shall perform a Method 5 test in accordance with the Montana Source Test Protocol and Procedures Manual to monitor compliance with E.2 (ARM 17.8.106).
- E.12. ASARCO shall perform a Method 12 test at least once every 5 years in accordance with the Montana Source Test Protocol and Procedures Manual to monitor compliance with E.3.
- E.13. ASARCO shall perform recordkeeping of the tons of material processed, as prescribed in §II.D.1(l) of Permit # 2557-11, to monitor compliance with E.4.
- E.14. Annually ASARCO shall perform a Method 2 test in accordance with the Montana Source Test Protocol and Procedures Manual to monitor compliance with E.6. Alternatively, ASARCO may monitor compliance with this requirement by performing a Method 2A, 2B, 2C, or 2D test.
- E.15. ASARCO shall, on an ongoing basis, monitor and record the hours of operation for both the Sample Mill and the Sample Mill Baghouse Fan each quarter.

Recordkeeping

- E.16. ASARCO shall maintain on-site records of all inspection and maintenance activities performed on the baghouses in accordance with Baghouse Inspection and Maintenance Program and submit records to the Department upon request.
- E.17. Method 2, Method 5, Method 9, and Method 12 test reports must be maintained on site and must be submitted to the Department in accordance with the Montana Source Protocol and Procedures Manual.
- E.18. ASARCO shall maintain on-site records of the tons of material processed at the sample mill, and the total hours of sample mill baghouse fan operation.

Reporting

- E.19. The annual compliance certification report required by Section V.B must contain a certification statement for the above applicable requirements. The quarterly compliance monitoring reports shall include the hours of both the sample mill and the sample mill baghouse fan operation during the reporting period. The semiannual compliance monitoring reports shall include a summary of:
- The results of any testing conducted during the reporting period;
 - Any corrective actions taken as a result of the inspections and maintenance as required by the Baghouse Inspection and Maintenance Program; and
 - The tons of material processed during the reporting period.

F. EU002 - Laboratory (2P)

| Condition(s) | Pollutant/ Parameter | Permit / SIP Limit | Compliance Demonstration | | Reporting Requirements |
|-----------------------|--------------------------|----------------------------------|--------------------------|----------------------------------|---------------------------|
| | | | Method | Frequency | |
| F.1, F.4, F.7, F.9 | Opacity | 20% | Method 9 | As Required by the Department | Semi-annual |
| F.2, F.5, F.7, F.9 | Particulate Matter | $E = 4.10 * P^{0.67}$ | Method 5 | As Required by the Department | Semi-annual |
| F.3, F.6, F.8, F.9 | # of Samples Analyzed | 16,000 Pb Crucibles / Quarter | Recordkeeping | Ongoing | Quarterly |

Conditions

- F.1. ASARCO shall not cause or authorize emissions to be discharged to the atmosphere from the Laboratory (2P) that exhibit an opacity of 20% or greater averaged over 6 consecutive minutes (Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000).
- F.2. ASARCO shall not cause or authorize emissions of particulate matter from the Laboratory to be discharged to atmosphere that exceed the value calculated by $E = 4.10 * P^{0.67}$, where E is the rate of emissions in pounds per hour and P is the process weight rate in tons per hour (ARM 17.8.310).
- F.3. ASARCO shall not analyze more than 16,000 lead crucibles per quarter through the Laboratory (Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000).

Compliance Demonstration

- F.4. As required by the Department, ASARCO shall perform a Method 9 test in accordance with the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106). Each observation period shall be a minimum of 6 minutes, unless any one reading is greater than the 20% opacity limit; then the observation period shall be a minimum of 20 minutes or until a violation of the standard has been documented, whichever is a shorter period of time.
- F.5. As required by the Department, ASARCO shall perform a Method 5 test in accordance with the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106).

- F.6. ASARCO shall, on an ongoing basis, monitor the quantity of lead crucibles analyzed through the Laboratory such that compliance with F.3 may be determined.

Recordkeeping

- F.7. Method 5 and Method 9 test reports must be maintained on site and must be submitted to the Department in accordance with the Montana Source Test Protocol and Procedures Manual.
- F.8. ASARCO shall, on an ongoing basis, record the quantity of lead crucibles analyzed through the Laboratory such that compliance with F.3 may be determined.

Reporting

- F.9. The annual compliance certification report required by Section V.B must contain a certification statement for the above applicable requirements. The semiannual reporting shall provide the results of any testing conducted during the reporting period. Quarterly Reports shall indicate the number of lead crucibles analyzed through the Laboratory for the reporting period.

G. EU003 - Thaw House (28V)

| Condition(s) | Pollutant/Parameter | Permit/SIP Limit | Compliance Demonstration | | Reporting Requirements |
|--------------------|---------------------|---------------------------|--------------------------|-----------|------------------------|
| | | | Method | Frequency | |
| G.1, G.4, G.5, G.6 | Opacity | 40% | Natural Gas Combustion | Ongoing | Annual Certification |
| G.2, G.4, G.5, G.6 | Particulate Matter | $E = 0.882 * H^{-0.1664}$ | Natural Gas Combustion | Ongoing | Annual Certification |
| G.3, G.4, G.5, G.6 | Sulfur in Fuel | 50 grains/100 cu. ft. | Natural Gas Combustion | Ongoing | Annual Certification |

Conditions

- G.1. ASARCO shall not cause or authorize emissions to be discharged to the atmosphere from the Thaw House (28V) that exhibit an opacity of 40% or greater averaged over 6 consecutive minutes (ARM 17.8.304(1)).
- G.2. ASARCO shall not cause or authorize particulate matter, caused by the combustion of fuel-burning equipment installed before November 23, 1968, to be discharged into the outdoor atmosphere in excess of the value calculated by $E = 0.882 * H^{-0.1664}$, where H is the heat input capacity in MMBtu per hour and E is the maximum allowable particulate emission rate in lb/MMBtu (ARM 17.8.309).
- G.3. ASARCO shall not burn any gaseous fuel containing sulfur compounds in excess of 50 grains per 100 cubic feet of gaseous fuel, calculated as hydrogen sulfide at standard conditions (ARM 17.8.322(5)).

Compliance Demonstration

- G.4. The compliance demonstration required by this permit for the opacity (G.1), particulate matter from fuel combustion (G.2), and sulfur in fuel requirements (G.3), for the Thaw House shall consist of burning only "pipeline-quality" natural gas. This does not preclude the Department from initiating an enforcement action if one of the limits is being violated.

Recordkeeping

- G.5. ASARCO shall maintain on site all appropriate records (plant accounting records) such that compliance with G.4 may be determined. ASARCO shall provide all records to the Department upon request.

Reporting

- G.6. The annual compliance certification report required by Section V.B must contain a certification statement for the above applicable requirements, and that only natural gas was combusted.

H. EU004 - High Grade Building Dumping Area (4V)

| Condition(s) | Pollutant/ Parameter | Permit / SIP Limit | Compliance Demonstration Method Frequency | | Reporting Requirements |
|-----------------------------|-------------------------------|---------------------------|--|----------------------------------|---------------------------|
| H.1, H.4, H.5, H.8, H.11 | Opacity | 20% | Method 9 | As Required by the Department | Semi-annual |
| | | Reasonable Precautions | Visual Surveys | Weekly | Semi-annual |
| H.2,H.6, H.10, H.11 | Particulate Matter | $E = 4.10 * P^{0.67}$ | Normal Operations | Annual Certification | Annual Certification |
| H.3, H.7, H.9, H.11 | Tons of Material Processed | 3900 Tons/Quarter | Record Keeping | Ongoing | Quarterly |

Conditions

- H.1. ASARCO shall not cause or authorize the production, handling, transportation, or storage of any material unless reasonable precautions to control emissions of particulate matter are taken. Such emissions of airborne particulate matter from any stationary source shall not exhibit an opacity of 20% or greater averaged over 6 consecutive minutes, unless otherwise specified by rule or in this permit (ARM 17.8.308(1)).
- H.2. The particulate emissions from process weight shall not exceed the value calculated by $E = 4.10 \times P^{0.67}$, where E is the rate of emissions in pounds per hour and P is the process weight rate in tons per hour (ARM 17.8.310).
- H.3. ASARCO shall not dump more than 3900 tons of material (dust and non-dust) per quarter in the High Grade Building Dumping Area (Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000).

Compliance Demonstration

- H.4. As required by the Department, ASARCO shall perform a Method 9 test in accordance with the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106). Each observation period shall be a minimum of 6 minutes, unless any one reading is greater than the relevant opacity limit (20%); then the observation period shall be a minimum of 20 minutes or until a violation of the standard has been documented, whichever is a shorter period of time.
- H.5. For the purpose of certification, ASARCO shall perform weekly visual surveys of the visible emissions from the material handling operation. Conducting a visual survey does not relieve ASARCO from the liability of a violation documented with a Method 9 test. The person conducting the visual survey does not have to be an EPA Method 9 certified observer; however, the individual must be familiar with the procedures of EPA Method 9, including the proper location from which to observe visible emissions. If excessive fugitive emissions are identified, ASARCO shall initiate efforts to minimize or curtail the emissions.

- H.6. ASARCO is required to maintain normal operations to monitor compliance with H.2.
- H.7. ASARCO shall monitor and record the amount of material, dust and non-dust, dumped at the High Grade Building Area.

Recordkeeping

- H.8. All test reports must be maintained on site and must be submitted to the Department in accordance with the Montana Source Test Protocol and Procedures Manual. A log of the weekly visual survey results shall be maintained on site and submitted to the Department upon request. The log shall include the date, time, observer's initials, and any corrective actions that have been taken.
- H.9. ASARCO shall maintain on-site records of the tons of material (both dust and non-dust) dumped at the High Grade Building Dumping Area.
- H.10. ASARCO is not required to perform recordkeeping for requirements H.2 and H.6.

Reporting

- H.11. The annual compliance certification report required by Section V.B must contain a certification statement for the above applicable requirements. The semiannual reporting shall provide a summary of results of any testing conducted during the reporting period. The quarterly reporting shall provide the tons of material processed during the reporting period.

I. EU005 - Rail Car Loadout Hopper (23P)

| Condition(s) | Pollutant/ Parameter | Permit / SIP Limit | Compliance Demonstration Method | Frequency | Reporting Requirements |
|---------------------------------------|---|--|--|-----------------------------------|---------------------------|
| I.1, I.6, I.7, I.11, I.12, I.14 | Opacity | 20% | Method 9 | As Required by the Department. | Semi-annual |
| | | | Normal Operation and Maintenance | Ongoing | Annual Certification |
| I.2, I.8, I.11, I.14 | Particulate Matter | 0.015 gr/dscf | Method 5 | As Required by the Department. | Semi-annual |
| I.3, I.7, I.12, I.14 | Baghouse Emission Control | Pulse-Jet Baghouse | Normal Operation and Maintenance | Ongoing | Semi-annual |
| I.4, I.9, I.12, I.14 | Operation of Railcar Loadout Hopper | Fully Enclosed Railcars and vented back to charge hopper (Baghouse) | Normal Operation and Maintenance | Ongoing | Annual Certification |
| I.5, I.10, I.13, I.14 | Operation of Railcar Loadout Facility and Hopper | 600 hours of operation per calendar quarter | Monitoring of Fan Operation & Recordkeeping | Ongoing | Quarterly |

Conditions

- I.1. ASARCO shall not cause or authorize emissions to be discharged to the atmosphere from the rail car loadout hopper (23P) that exhibit an opacity of 20% or greater averaged over 6 consecutive minutes (ARM 17.8.304(2)).
- I.2. ASARCO shall not cause or authorize Particulate Emissions to be discharged to the atmosphere from the rail car loadout hopper (23P) in excess of 0.015 gr/dscf (ARM 17.8.715)
- I.3. ASARCO shall control emissions from the railcar loadout hopper with a pulse-jet baghouse (ARM 17.8.715).
- I.4. When loading railcars from the hopper, the railcars shall be vented back to the charge hopper (ARM 17.8.715).
- I.5. ASARCO shall not operate the railcar loadout facility more than 600 hours per calendar quarter (ARM 17.8.715).

Compliance Demonstration

- I.6. As required by the Department, ASARCO shall perform a Method 9 test in accordance with the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106). Each observation period shall be a minimum of 6 minutes, unless any one reading is greater than the relevant opacity limit (20% or 40%); then the observation period shall be a minimum of 20 minutes or until a violation of the standard has been documented, whichever is a shorter period of time.
- I.7. ASARCO shall, on an ongoing basis, operate and maintain the Railcar Loadout Hopper. ASARCO shall certify ongoing normal operations on a semi-annual basis and record any maintenance activities conducted for this source.
- I.8. As required by the Department, ASARCO shall perform a Method 5 test in accordance with the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106).

- I.9. ASARCO shall certify that the baghouse controlling emissions for the Rail Car Loadout Hopper is a pulse-jet, and that the railcars are vented back to the charge hopper.
- I.10. ASARCO shall monitor the hours of baghouse fan operation to monitor compliance with I.5, the hourly limitation for operation of the Rail Car Loadout Facility.

Recordkeeping

- I.11. Method 5 and Method 9 test reports must be maintained on site and must be submitted to the Department in accordance with the Montana Source Protocol and Procedures Manual.
- I.12. ASARCO shall maintain on-site records of ongoing normal operations and any inspection and maintenance activities performed for the Railcar Loadout Hopper Baghouse.
- I.13. ASARCO shall, on an ongoing basis, monitor and record the hours of operation for the Rail Car Loadout Hopper Baghouse Fan such that compliance with I.5 may be determined.

Reporting

- I.14. The annual compliance certification report required by Section V.B must contain a certification statement for the above applicable requirements. The semiannual reporting shall provide a summary of results of all source testing that was performed for the reporting period and a record of normal operation and any maintenance activities performed for the Railcar Loadout Hopper Baghouse. The quarterly reporting shall provide the hours of operation of the Rail Car Loadout Hopper Baghouse Fan.

J. EU006 - Old Ore Storage Yard (3V)

| Condition(s) | Pollutant / Parameter | Permit / SIP Limit | Compliance Demonstration Method | Frequency | Reporting Requirements |
|-----------------------------|---|---|--|----------------------------|------------------------|
| J.1, J.11, J.12, J.19, J.25 | Opacity | 20% | Method 9 | As Required by the Dept. | Semi-annual |
| | | Reasonable Precautions | Visual Surveys | Weekly | Semi-annual |
| J.2, J.13, J.19, J.25 | Particulate Matter | $E = 55.0 P^{0.11} - 40$ | Normal Operations | Annual Certification | Annual Certification |
| J.3, J.14, J.20, J.25 | Average Payloader Bucket Size used for dropping dust. | 3.5 yards ³ or greater | Payloader Load Cell Measurement System | Ongoing | Semi-annual |
| J.4, J.15, J.22, J.25 | Non Dust Material Dropped (Moved) | 9600 ton/quarter | Plant Accounting Records | Quarterly | Quarterly |
| J.5, J.14, J.20, J.25 | Lead Emissions from Dropping Dust | 252 lb Pb/quarter as determined by Equation 1 in the Lead Control Plan Requirements | Payloader Load Cell Measurement System | Quarterly | Quarterly |
| J.6, J.14, J.20, J.25 | Lead Emissions from Dropping Dust during the Afternoon Shift. | 22.4 lb Pb/quarter as determined by Equation 1 unutilized Night Shift emission allocations may be transferred to the Afternoon Shift. | Payloader Load Cell Measurement System | Quarterly | Quarterly |
| J.7, J.14, J.20, J.25 | Lead Emissions from Dropping Dust during the Night Shift. | 9.9 lb Pb / quarter as determined by Equation 1 of the Lead Control Plan | Payloader Load Cell Measurement System | Quarterly | Quarterly |
| J.8, J.16, J.24, J.25 | Dust dropped by rail crane or any other crane | Dust shall not be dropped outdoors by rail-crane or any other crane. | Lead Control Plan | Lead Control Plan | Annual Certification |
| J.9, J.17, J.21, J.25 | Average Payloader drop height when dropping Dust | Less than or Equal to 5 feet | Visual Surveys & Lead Control Plan | Weekly & Lead Control Plan | Semi-annual |
| J.10, J.18, J.23, J.25 | Hourly Average Wind Speed in the hour prior to Dust Dropping and Moving | 12.0 MPH | Meteorological Monitoring Site | Hourly | Semi-annual |

Conditions

- J.1. ASARCO shall not cause or authorize the production, handling, transportation, or storage of any material in the Old Ore Storage Yard unless reasonable precautions to control emissions of particulate matter are taken. Such emissions of airborne particulate matter from any stationary source shall not exhibit an opacity of 20% or greater averaged over 6 consecutive minutes, unless otherwise specified by rule or in this permit (ARM 17.8.308(1)).
- J.2. ASARCO shall not cause or authorize emissions of particulate matter from the handling, transporting, or storing of materials in the Old Ore Storage Yard, to be discharged to atmosphere that exceed the value calculated by $E = 55.0 P^{0.11} - 40$, where E is the rate of emissions in pounds per hour and P is the process weight rate in tons per hour (ARM 17.8.310).

- J.3. ASARCO shall utilize payloaders with an average bucket size equal to or greater than 3.5 cubic yards when dropping dust in the Old Ore Storage Yard (Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000).
- J.4. ASARCO shall not drop more than 9600 tons of non-dust material in the Old Ore Storage Yard per quarter as determined by plant accounting records (Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000).
- J.5. ASARCO shall not exceed 252 pounds per quarter of lead emissions from dropping dust in the Old Ore Storage yard as determined by Equation 1 (Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000).
- J.6. ASARCO shall not exceed 22.4 pounds per quarter of lead emissions from dropping dust in the Old Ore Storage yard during the afternoon shift as determined by Equation 1. Unutilized night shift emission allocations may be transferred to the afternoon shift (Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000).
- J.7. ASARCO shall not exceed 9.9 pounds per quarter of lead emissions from dropping dust in the Old Ore Storage yard during the night shift as determined by Equation 1. Unutilized night shift emission allocations may be transferred to the afternoon shift (Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000).
- J.8. ASARCO shall not drop dust outdoors by rail-crane or any other crane (Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000).
- J.9. ASARCO shall not exceed an average payloader drop height of 5 feet when dropping dust in the Old Ore Storage Yard (Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000).
- J.10. ASARCO shall not drop dust when the hourly-average wind speed at the ASARCO meteorological monitoring site is greater than 12.00 mph for the hour prior to the dropping of the material (Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000).

Compliance Demonstration

- J.11. As required by the Department, ASARCO shall perform a Method 9 test in accordance with the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106). Each observation period shall be a minimum of 6 minutes, unless any one reading is greater than the opacity limit; then the observation period shall be a minimum of 20 minutes or until a violation of the standard has been documented, whichever is a shorter period of time.
- J.12. For the purpose of certification, ASARCO shall perform weekly visual surveys of the visible emissions from the material handling operation. Conducting a visual survey does not relieve ASARCO from the liability of a violation documented with a Method 9 test. The person conducting the visual survey does not have to be an EPA Method 9 certified observer; however, the individual must be familiar with the procedures of EPA Method 9, including the proper location from which to observe visible emissions. If excessive fugitive emissions are identified, ASARCO shall initiate efforts to minimize or curtail the emissions.
- J.13. ASARCO is required to maintain normal operations to monitor compliance with J.2.
- J.14. ASARCO shall utilize data from the payloader Load Cell System to monitor compliance with J.3, J.5, J.6, and J.7.

- J.15. ASARCO shall utilize plant accounting records to monitor compliance with J.4.
- J.16. ASARCO shall certify annually that dust is not handled outdoors by rail-crane or any other type of crane.
- J.17. ASARCO shall monitor compliance with J.9 by performing weekly visual surveys of the average payloader drop height. If an average payloader drop height greater than 5 feet is determined as a result of the weekly survey, ASARCO shall initiate corrective actions.
- J.18. ASARCO shall utilize data from the payloader Load Cell System and the on site meteorological station to monitor compliance with J.10.

Recordkeeping

- J.19. All test reports must be maintained on site and must be submitted to the Department in accordance with the Montana Source Test Protocol and Procedures Manual. A log of the weekly visual survey results shall be maintained on site and submitted to the Department upon request. The log shall include the date, time, observer's initials, and any corrective actions that have been taken.
- J.20. ASARCO shall collect and record the date, time, tonnage, material location, and material identifier from the payloader Load Cell Systems.
- J.21. ASARCO shall record the average payloader drop height observed during the weekly visual surveys of the old ore storage yard. The payloader drop height visual survey results may be recorded in the log maintained for visible emissions.
- J.22. ASARCO shall maintain all plant accounting records demonstrating compliance with J.4.
- J.23. ASARCO shall collect and record all data from their on-site meteorological station.
- J.24. ASARCO does not have to perform recordkeeping for J.8 and J.16

Reporting

- J.25. The annual compliance certification report required by Section V.B must contain a certification statement for the above applicable requirements. The semiannual reporting shall provide the results from any Method 9 tests performed, all weekly visual survey results and the hourly average wind speed prior to dropping dust. The quarterly reporting shall provide:
 - a. The total tons of dust dropped by payloader;
 - b. The total amount of non-dust handled;
 - c. The total lead emissions from dropping dust;
 - d. The tons of dust dropped during the afternoon shift, and the lead emissions from dropping dust during the afternoon shift; and
 - e. The tons of dust dropped during the night shift, and the lead emissions from dropping dust during the night shift.

K. EU007 - Concentrate Storage & Handling Building - (6P*)

| Condition(s) | Pollutant / Parameter | Permit / SIP Limit | Compliance Method | Demonstration Frequency | Reporting Requirements |
|--|---|--|----------------------|-------------------------|------------------------|
| K.1, K.9, K.10, K.17, K.18, K.19, K.20, K.23 | Opacity | 20% | Method 9 | Annual | Semi-annual |
| | | | Baghouse I&M | Baghouse I&M Program | Semi-annual |
| K.2, K.11, K.17, K.18, K.19, K.23 | Particulate Matter | 20.81 lb/hr | Method 5 | 5 Years | Semi-annual |
| K.3, K.12, K.18, K.19, K.23 | Lead (SIP) | 4.0876 lb/hr | Method 12 | Annual | Semi-annual |
| K.4, K.13, K.18, K.19, K.23 | Sulfur Dioxide | 46.00 lb/hr | Method 6/6C | 2 Years | Semi-annual |
| K.5, K.10, K.20, K.23 | Baghouse ventilation and emission control | CSHB Baghouses provide ventilation and emission control to the CSHB and to the Acid Dust Handling System (Agglomerator Bldg.) | Baghouse I&M Program | Baghouse I&M Program | Semi-annual |
| K.6, K.14, K.18, K.19, K.23 | Minimum Airflow | 243,000 acfm when the CSHB, Sinter Machine, & Acid Dust Handling System are operating. | Method 2 | Annual | Semi-annual |
| K.7, K.15, K.21, K.23 | Haul and Access Roads that Service the CSHB | Paved & Maintained | Lead Control Plan | Lead Control Plan | Annual |
| K.8, K.16, K.22, K.23 | Quarterly Hours of Baghouse Fan Operation | Record the quarterly operating hours of the CSHB and install & operate device to monitor and record hours of baghouse fan operation for North and South CSHB Baghouse Fans, the CSHB Feeder Room Baghouse Fan, and the Acid Dust Handling System Fan | Lead Control Plan | Quarterly | Quarterly |

***3 CSHB baghouses, and 1 SPVS baghouse, vent to stack 6P. The Agglomerator Bldg. ventilation, Agglomerator Bldg. baghouse, and crushing mill baghouse, vent into the CSHB.**

Conditions

- K.1. ASARCO shall not cause or authorize emissions to be discharged to the atmosphere from the Concentrate Storage and Handling Building (CSHB) stack, ASARCO emission point number 6P, that exhibit an opacity of 20% or greater averaged over 6 consecutive minutes (Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000 and ARM 17.8.304(2)).

- K.2. ASARCO shall not cause or authorize particulate matter to be discharged from the CSHB (6P) into the outdoor atmosphere in excess of 20.81 lb/hr (ARM 17.8.715).
- K.3. ASARCO shall not cause or authorize emissions of lead to be discharged to the atmosphere from the CSHB that exceed 4.0876 lb of lead per hour (Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000).
- K.4. ASARCO shall not cause or authorize emissions of sulfur dioxide to be discharged to the atmosphere from the CSHB that exceed 46.00 lb (of SO₂) per hour (ARM 17.8.715).
- K.5. ASARCO shall utilize the CSHB baghouses (North, South, and Feeder Room) and associated ventilation equipment to supply ventilation to and control emissions from the CSHB and the (Agglomerator Bldg.) Acid Dust Handling System (Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000).
- K.6. ASARCO shall maintain a minimum airflow of 243,000 acfm from the CSHB baghouses, SPVS Baghouse, and associated ventilation equipment when the CSHB, Sinter Machine, and Acid Dust Handling System are operating (Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000).
- K.7. ASARCO shall pave and maintain haul and access roads that service the CSHB (ARM 17.8.710).
- K.8. ASARCO shall record the quarterly operating hours of CSHB and install and operate devices to monitor and record the hours of fan operation each quarter for the North and South CSHB baghouse fans, the CSHB Feeder Room Baghouse Fan, and the Acid Dust Handling System Fan (Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000).

Compliance Demonstration

- K.9. Annually, ASARCO shall perform a Method 9 test in accordance with the Montana Source Test Protocol and Procedures Manual to monitor compliance with E.1 (ARM 17.8.106). Each observation period shall be a minimum of 6 minutes, unless any one reading is greater than the relevant opacity limit (20% or 40%); then the observation period shall be a minimum of 20 minutes or until a violation of the standard has been documented, whichever is a shorter period of time.
- K.10. ASARCO shall, on an ongoing basis, operate and maintain the CSHB Baghouses (North, South, Feeder Room), the baghouses that vent into the CSHB (Agglomerator, Crushing Mill), and baghouses that vent to the CSHB stack (SPVS) in accordance with the Baghouse Inspection and Maintenance Program.
- K.11. ASARCO shall perform a Method 5 test every 5 years in accordance with the Montana Source Test Protocol and Procedures Manual to monitor compliance with K.2 (ARM 17.8.106).
- K.12. ASARCO shall perform an annual Method 12 test in accordance with the Montana Source Test Protocol and Procedures Manual to monitor compliance with K.3.
- K.13. ASARCO shall perform a Method 6/6C test every 2 years, in accordance with the Montana Source Test Protocol and Procedures Manual, to monitor compliance with K.4.
- K.14. Annually, ASARCO shall perform a Method 2 test in accordance with the Montana Source Test Protocol and Procedures Manual to monitor compliance with K.6. Alternatively, ASARCO may monitor compliance with this requirement by performing a Method 2A, 2B, 2C, or 2D test.

- K.15. ASARCO shall certify annually that all haul and access roads servicing the CSHB are paved and maintained. ASARCO shall maintain the access roads servicing the CSHB as prescribed in Section 3(C)(2) of Exhibit A (Lead Control Plan).
- K.16. ASARCO shall monitor and record the quarterly hours of CSHB operation and fan operation each quarter for each of the three CSHB baghouse fans, and the Acid Dust Handling System Fan.
- K.17. When Method 5 testing is required, ASARCO shall conduct total particulate matter testing and opacity testing, concurrently.
- K.18. Whenever testing is performed on the CSHB stack, ASARCO shall ensure that all individual processes that cause emissions within the CSHB are operating during testing and all individual processes that are being ventilated by the SPVS are operating at the time of testing, or another testing method as may be approved by the Department.

Recordkeeping

- K.19. ASARCO shall maintain all test reports (Method 2, Method 5, Method 6/6C, Method 9, Method 12, etc.) on-site. All test reports must satisfy the requirements of the Air Quality Preconstruction Permit for ASARCO, Section II (C)(12), and be submitted to the Department in accordance with the Montana Source Test Protocol and Procedures Manual.
- K.20. ASARCO shall maintain on-site records of all inspection and maintenance activities performed in accordance with the Baghouse Inspection and Maintenance Program.
- K.21. ASARCO shall maintain on-site records of all inspection and maintenance activities performed in accordance with Section 3(C)(2) of Exhibit A (Lead Control Plan).
- K.22. ASARCO shall record the quarterly hours of operation for the CSHB, the North, South, and Feeder Room Baghouse Fans, as well as the Acid Dust Handling System Fan.

Reporting

- K.23. The annual compliance certification report required by Section V.B must contain a certification statement for the above applicable requirements, as well as the tons of material handled annually through the CSHB. The semiannual reporting shall provide a summary of results for all source testing performed within the reporting period, and any corrective actions taken as a result of the inspections and maintenance required by the Baghouse Inspection and Maintenance Program. The quarterly reporting shall provide the hours of (baghouse) fan operation for each fan, and the number of operating hours for the CSHB during the quarter.

L. EU009 - Sinter Plant Building (6V)

| Condition(s) | Pollutant / Parameter | Permit / SIP Limit | Compliance Method | Demonstration Frequency | Reporting Requirements |
|----------------------|------------------------------|----------------------------|--------------------|--------------------------|------------------------|
| L.1, L.5, L.9, L.13 | Opacity (SIP) | 40% | Method 9 | As Required by the Dept. | L.1, L.5, L.9, L.13 |
| L.2, L.6, L.10, L.13 | Natural Draft Opening (NDO) | 1100 ft ² | Direct Measurement | As Required by the Dept. | L.2, L.6, L.10, L.13 |
| L.3, L.7, L.11, L.13 | Particulate Matter | $E = 55.0 * P^{0.11} - 40$ | Normal Operations | Annual Certification | L.3, L.7, L.11, L.13 |
| L.4, L.8, L.12, L.13 | Sinter Plant Operating Hours | Quarterly Operating Hours | Maintain Records | Ongoing | L.4, L.8, L.12, L.13 |

Conditions

- L.1. ASARCO shall not cause or authorize emissions to be discharged to the atmosphere from the Sinter Plant Building (6V) that exhibit an opacity of 40% or greater averaged over 6 consecutive minutes (ARM 17.8.304(1)).
- L.2. ASARCO shall not allow the openings of the Sinter Plant Building (Sinter Plant (D&L) Building) to exceed 1100 ft². Garage doors, man doors and temporary openings necessary for maintenance and repairs shall not count against this limitation, provided ASARCO keeps such openings in their closed position except when actually in use (Primary SO₂ NAAQS - Board of Environmental Review Order - March 18, 1994).
- L.3. ASARCO shall not cause or authorize particulate matter to be discharged from any operation, process, or activity into the outdoor atmosphere in excess of the maximum hourly allowable emissions of particulate matter calculated using $E = 55.0 * P^{0.11} - 40$, where E is the rate of emissions in pounds per hour and P is the process weight rate in tons per hour (ARM 17.8.310).
- L.4. ASARCO shall determine and record the total number of quarterly operating hours for the Sinter Plant (Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000).

Compliance Demonstration

- L.5. As required by the Department, ASARCO shall perform a Method 9 test in accordance with the Montana Source Test Protocol and Procedures Manual to monitor compliance with L.1 (ARM 17.8.106). Each observation period shall be a minimum of 6 minutes, unless any one reading is greater than 40%; then the observation period shall be a minimum of 20 minutes or until a violation of the standard has been documented, whichever is a shorter period of time.
- L.6. As required by the Department, ASARCO shall determine the Natural Draft Opening (NDO) of the Sinter Plant Building. ASARCO shall certify annually that the NDO of the Sinter Plant Building is less than or equal to 1100 ft².
- L.7. ASARCO is required to maintain normal operations to monitor compliance with L.3.
- L.8. ASARCO is required to maintain records of quarterly Sinter Plant operating hours to monitor compliance with L.4.

Recordkeeping

- L.9. Method 9 test reports must be maintained on site and must be submitted to the Department in accordance with the Montana Source Protocol and Procedures Manual.
- L.10. NDO determinations shall be maintained on site and shall be made available to the Department upon request.
- L.11. Recordkeeping is not required for L.6.
- L.12. All records compiled in accordance with L.8 shall be maintained on site and reported to the Department in accordance with L.13.

Reporting

- L.13. The annual compliance certification report required by Section V.B must contain a certification statement for the above applicable requirements. The semiannual reporting shall provide a summary of results of the last source testing that was performed and the results of any NDO determinations performed. The quarterly reporting shall include the number of operating hours for the Sinter Plant Building during the quarter.

M. EU010 - Sinter Plant Ventilation System (6P*)

| Condition(s) | Pollutant / Parameter | Permit / SIP Limit | Compliance Method | Demonstration Frequency | Reporting Requirements |
|---------------------------------|---------------------------------------|---|----------------------|--------------------------|------------------------|
| M.1, M.6, M.7, M.10, M.11, M.13 | Opacity | 20% | Method 9 | As Required by the Dept. | Semi-annual |
| | | | Baghouse I&M | Baghouse I&M Program | Semi-annual |
| M.2, M.8, M.10, M.13 | Minimum Baghouse Airflow | The SPVS Baghouse and associated ventilation system shall maintain a minimum airflow of 36,000 ACFM when the Sinter Plant is operating. | Method 2 | Annual | Semi-annual |
| M.3, M.9, M.12, M.13 | Hours of SPVS baghouse fan operation. | Monitor and Record quarterly and annual hours of baghouse fan operation. | Lead Control Plan | Quarterly | Quarterly |
| M.4, M.7, M.11, M.13 | Emission Control and Ventilation | The SPVS Baghouse and associated ventilation equipment shall be used to supply ventilation to and control emission from the Sinter Plant and shall exhaust through the CSHB Baghouse stack. | Baghouse I&M Program | Baghouse I&M Program | Semi-annual |
| M.5, M.7, M.11, M.13 | Ventilation | The SPVS shall supply ventilation to the Larry Pit, the Tail No. 2 and No. 4 Pans, the Tail No. 3 Pan, the Smooth Roll, the Down Day Mid 3 Pan, the vibrating conveyor, the moisture screw, the Head E2/D Belt, the nodulizer drum inlet chute, the J Belt/ignition shuttle, the grate rapper, the 1-4 Fan Shafts, the Pallet repair and the Sinter Machine tail. | Baghouse I&M Program | Baghouse I&M Program | Semi-annual |

***SPVS vents to the CSHB stack - 6P Conditions**

- M.1. ASARCO shall not cause or authorize emissions to be discharged to the atmosphere from the Sinter Plant Ventilation System Baghouse (CSHB stack), that exhibit an opacity of 20% or greater averaged over 6 consecutive minutes (ARM 17.8.304(2)).
- M.2. ASARCO shall maintain a minimum airflow of 36,000 acfm through the SPVS baghouse when the Sinter Machine is operating (Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000).

- M.3. ASARCO shall install and operate device(s) to monitor and record the hours of fan operation each quarter for the SPVS Baghouse Fan (Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000).
- M.4. ASARCO shall utilize the SPVS baghouse and associated ventilation equipment to supply ventilation to and control emissions from the Sinter Plant. The emissions shall be exhausted through the CSHB Baghouse Stack (6P) (Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000).
- M.5. The SPVS baghouse and associated ventilation equipment shall supply ventilation to the Larry Pit, the Tail No. 2 and No. 4 Pans, the Tail No. 3 Pan, the Smooth Roll, the Down Day Mid 3 Pan, the vibrating conveyor, the moisture screw, the Head E2/D Belt, the nodulizer drum inlet chute, the J Belt/ignition shuttle, the grate rapper, the 1-4 Fan Shafts, the Pallet repair and the Sinter Machine tail (ARM 17.8.710).

Compliance Demonstration

- M.6. As required by the Department, ASARCO shall perform a Method 9 test in accordance with the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106). Each observation period shall be a minimum of 6 minutes, unless any one reading is greater than the relevant opacity limit (20%); then the observation period shall be a minimum of 20 minutes or until a violation of the standard has been documented, whichever is a shorter period of time.
- M.7. ASARCO shall, on an ongoing basis, operate and maintain the SPVS Baghouse and associated ventilation equipment in accordance with Baghouse Inspection and Maintenance Program and the Lead MACT.
- M.8. Annually ASARCO shall perform a Method 2 test in accordance with the Montana Source Test Protocol and Procedures Manual. Alternatively, ASARCO may monitor compliance with this requirement by performing a Method 2A, 2B, 2C, or 2D test.
- M.9. ASARCO shall monitor and record the hours of fan operation for the SPVS Baghouse Fan.

Recordkeeping

- M.10. ASARCO shall maintain all test reports (Method 2, Method 5, Method 9) on-site. All test reports must satisfy the requirements of the Air Quality Preconstruction Permit for ASARCO, Section II(C)(12), and be submitted to the Department in accordance with the Montana Source Test Protocol and Procedures Manual.
- M.11. ASARCO shall maintain on-site records of all inspection and maintenance activities performed in accordance with the Baghouse Inspection and Maintenance Program.
- M.12. ASARCO shall, on an ongoing basis, monitor and record the hours of operation for the SPVS Baghouse Fan.

Reporting

- M.13. The annual compliance certification report required by Section V.B must contain a certification statement for the above applicable requirements. The semiannual reporting shall provide a summary of results for all source testing performed within the reporting period, and any corrective actions taken as a result of the inspections and maintenance required by the Baghouse Inspection and Maintenance Program. The quarterly reporting shall provide the hours of (baghouse) fan operation during the quarter.

N. EU011 & EU013 - Sinter Plant Roof Baghouses

EU011 - #7 Sinter Plant Roof Baghouse (3Pa)

EU013 - #8 Sinter Plant Roof Baghouse (4Pa)

| Condition(s) | Pollutant / Parameter | Permit / SIP Limit | Compliance Demonstration Method | Frequency | Reporting Requirements |
|-----------------------------------|----------------------------------|---|---------------------------------|--------------------------|------------------------|
| N.1, N.10, N.11, N.16, N.17, N.19 | Opacity | 20% | Method 9 | As Required by the Dept. | Semi-annual |
| | | | Baghouse I&M | Baghouse I&M | Semi-annual |
| N.2, N.12, N.16, N.19 | Particulate Matter | $E = 55.0 * P^{0.11} - 40$ | Method 5 | As Required by the Dept. | Semi-annual |
| N.3, N.13, N.16, N.19 | Lead (#7) | 0.0889 lb per hour. | Method 12 | Annual | Semi-annual |
| N.4, N.13, N.16, N.19 | Lead (#8) | 0.0225 lb per hour. | Method 12 | Annual | Semi-annual |
| N.5, N.11, N.17, N.19 | Emission Control and Ventilation | The Sinter Plant Roof Baghouses (#7 & #8) supply ventilation to and control emissions from the Sinter Plant (D&L) Building. | Baghouse I&M Program | Baghouse I&M Program | Semi-annual |
| N.6, N.14, N.16, N.19 | Minimum Air Flow (#7) | The #7 Sinter Plant Roof Baghouse shall maintain a minimum airflow of 20,000 ACFM when the Sinter Plant is operating. | Method 2 | Annual | Semi-annual |
| N.7, N.14, N.16, N.19 | Minimum Air Flow (#8) | The #8 Sinter Plant Roof Baghouse shall maintain a minimum airflow of 14,000 ACFM when the Sinter Plant is operating. | Method 2 | Annual | Semi-annual |
| N.8, N.15, N.18, N.19 | Baghouse Fan Operation | Monitor and record the hours of fan operation on #7 & #8 Sinter Plant Roof Baghouse Fans. | Lead Control Plan | Lead Control Plan | Quarterly |
| N.9, N.11, N.17, N.19 | Baghouse Dust Recovery | Baghouse dust shall be recovered by Vacuum Truck. | Baghouse I&M Program | Baghouse I&M Program | Semi-annual |

Conditions

- N.1. ASARCO shall not cause or authorize emissions to be discharged to the atmosphere from the #7 and #8 Sinter Plant Roof Baghouses (3Pa and 4Pa Respectively), that exhibit an opacity of 20% or greater averaged over 6 consecutive minutes (Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000 and ARM 17.8.304(2)).
- N.2. ASARCO shall not cause or authorize emissions of particulate matter from the Sinter Plant Roof Baghouses to be discharged to atmosphere that exceed the value calculated by $E = 55.0 * P^{0.11} - 40$, where E is the rate of emissions in pounds per hour and P is the process weight rate in tons per hour (ARM 17.8.310).
- N.3. ASARCO shall not cause or authorize emissions of lead to be discharged to the atmosphere from the #7 Sinter Plant Roof Baghouse that exceed 0.0889 lb of lead per hour (Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000).

- N.4. ASARCO shall not cause or authorize emissions of lead to be discharged to the atmosphere from the #8 Sinter Plant Roof Baghouse that exceed 0.0225 lb of lead per hour (Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000).
- N.5. ASARCO shall utilize the Sinter Plant Roof Baghouses (#7 & #8) and associated ventilation equipment to supply ventilation to and control emissions from the Sinter Plant (Sinter (D&L) Building (6V)) (Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000).
- N.6. ASARCO shall maintain a minimum airflow of 20,000 acfm through the #7 Sinter Plant Roof Baghouse, and associated ventilation equipment, when the Sinter Machine is operating (Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000).
- N.7. ASARCO shall maintain a minimum airflow of 14,000 acfm through the #8 Sinter Plant Roof Baghouse, and associated ventilation equipment, when the Sinter Machine is operating (Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000).
- N.8. ASARCO shall install and operate device(s) to monitor and record the hours of fan operation each quarter for the #7 Sinter Plant Roof Baghouse Fan and the #8 Sinter Plant Roof Baghouse Fan (Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000).
- N.9. ASARCO shall utilize a Vacuum Truck, or other means that will minimize emissions, to recover dust captured by the Sinter Plant Roof Baghouse Hoppers (Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000).

Compliance Demonstration

- N.10. As required by the Department, ASARCO shall perform a Method 9 test in accordance with the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106). Each observation period shall be a minimum of 6 minutes, unless any one reading is greater than the relevant opacity limit (20%); then the observation period shall be a minimum of 20 minutes or until a violation of the standard has been documented, whichever is a shorter period of time.
- N.11. ASARCO shall, on an ongoing basis, operate and maintain the Sinter Plant Roof Baghouses and associated ventilation equipment in accordance with the Baghouse Inspection and Maintenance Program and Lead MACT.
- N.12. As required by the Department, ASARCO shall perform a Method 5 test in accordance with the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106).
- N.13. ASARCO shall perform an annual Method 12 test in accordance with the Montana Source Test Protocol and Procedures Manual to monitor compliance with N.3 and N.4 (ARM 17.8.106).
- N.14. Annually ASARCO shall perform a Method 2 test in accordance with the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106). Alternatively, ASARCO may monitor compliance with this requirement by performing a Method 2A, 2B, 2C, or 2D test.
- N.15. ASARCO shall, on an ongoing basis, monitor and record the hours of fan operation each quarter for the Sinter Plant Roof Baghouses.

Recordkeeping

- N.16. ASARCO shall maintain all test reports (Method 2, Method 5, Method 9, Method 12, etc.) on-site. All test reports must satisfy the requirements of Air Quality Permit 2557-10, Section II (C)(12), and be submitted to the Department in accordance with the Montana Source Protocol and Procedures Manual.
- N.17. ASARCO shall maintain on-site records of all inspection and maintenance activities performed in accordance with the Baghouse Inspection and Maintenance Program.
- N.18. ASARCO shall maintain records of the (quarterly) hours of operation for the #7 and #8 Sinter Plant Roof Baghouse Fans.

Reporting

- N.19. The annual compliance certification report required by Section V.B must contain a certification statement for the above applicable requirements. The semiannual reporting shall provide a summary of results for all source testing performed within the reporting period, and any corrective actions taken as a result of the inspections and maintenance required by the Baghouse Inspection and Maintenance Program. The quarterly reporting shall provide the hours of (baghouse) fan operation for each fan.

O. EU015 - EU022 Sinter Plant Primary Air Pollution Control

EU015 - Sinter Plant Cottrell (ESP) (7V)

EU021 - Sinter Plant Cyclone

EU016 - Sinter Plant Scrubber Towers (27V)

EU022 - Sinter Plant (D&L) Baghouse (7P)

EU017 - Mist Precipitator Building (24V)

EU018 - Pump Tank Building (26V)

EU019 - Single Contact Acid Plant (8P)

| Condition(s) | Pollutant / Parameter | Permit / SIP Limit | Compliance Demonstration Method | Frequency | Reporting Requirements |
|--|---|--|---------------------------------|-------------------------------|------------------------|
| Sinter Plant ESP (Cottrell Penthouse - 7V), Scrubber Towers (27V), Mist Precipitator Building (24V), Pump Tank Building (26V), & Single Contact Acid Plant (8P) | | | | | |
| O.1, O.14, O.22, O.27 | Opacity: Pump Tank Building, Mist Precipitator Building, Scrubber Tower, and Cottrell Penthouse | 20% | Method 9 | As Required by the Department | Semi-annual |
| | Opacity: Acid Plant Stack | | | Semi-annual | |
| | Opacity: Sinter Plant (D&L) Baghouse | | | Annual | |
| O.2, O.16, O.22, O.27 | Particulate Matter from the Acid Plant Stack (8P) | $E = 55.0 * P^{0.11} - 40$ | Method 5 | Every 2 Years | Semi-annual |
| O.3, O.17, O.22, O.27 | Lead from the Acid Plant Stack (8P) | 0.0698 lb per hour. | Method 12 | Annual | Semi-annual |
| O.4, O.19, O.23, O.27 | Sulfur Dioxide from the Acid Plant Stack (8P). | 620 ppm - dry basis @ standard conditions averaged over 6 hours (block average). | CEM | Ongoing | Quarterly |
| O.5, O.20, O.24, O.27 | Emission Control and Ventilation | The Sinter Plant Cottrell (7V) and Acid Plant (8P) shall supply ventilation to and control emissions (strong gas) from the Sinter Machine. | Normal Operations | Annual Certification | Quarterly |
| O.6, O.18, O.22, O.27 | Minimum Airflow | 30,000 ACFM (when the Sinter Machine, Acid Plant, Cottrell, and associated equipment are operating.) | Method 2 | Annual | Quarterly |
| O.7, O.21, O.26, O.27 | Fan Operation | Monitor and record the hours of fan operation for the Acid Plant Hot Gas Fan, and the Acid Plant Main Blower. | Lead Control Plan | Lead Control Plan | Quarterly |
| O.8, O.14, O.15, O.22, O.25, O.27 | Opacity | 40% | Method 9 | Annual | Semi-annual |
| | | | Baghouse I&M | Baghouse I&M | Semi-annual |

| Condition(s) | Pollutant / Parameter | Permit / SIP Limit | Compliance Demonstration Method | Frequency | Reporting Requirements |
|--|---|---|---------------------------------|----------------------|------------------------|
| Sinter Plant ESP (Cottrell Penthouse - 7V), Scrubber Towers (27V), Mist Precipitator Building (24V), Pump Tank Building (26V), & Single Contact Acid Plant (8P) | | | | | |
| O.10, O.17, O.22, O.27 | Lead from the Sinter Plant D&L Stack (7P) | 1.8176 lb per hour. | Method 12 | Annual | Semi-annual |
| O.11, O.15, O.25, O.27 | Emission Control & Ventilation | The Sinter Plant (D&L) Baghouse shall supply ventilation to and control emissions (weak gas) from the Sinter Machine and associated equip. | Baghouse I&M Program | Baghouse I&M Program | Semi-annual |
| O.12, O.18, O.22, O.27 | Minimum Airflow | 112,000 acfm when the Sinter Machine is operating. | Method 2 | Annual | Semi-annual |
| O.13, O.21, O.26, O.27 | Fan Operation | Monitor and record the hours of fan operation for the Sinter Plant Baghouse Fan, the Sinter Plant #5 Ventilation Fan, and the Sinter Plant Stack Fan. | Lead Control Plan | Lead Control Plan | Quarterly |

Conditions

- O.1. ASARCO shall not cause or authorize emissions to be discharged to the atmosphere from the Acid Plant Stack, the Pump Tank Building, the Mist Precipitator Building, the Scrubber Towers, and the Cottrell Penthouse, that exhibit an opacity of 20% or greater averaged over 6 consecutive minutes (ARM 17.8.304(2)).
- O.2. ASARCO shall not cause or authorize emissions of particulate matter from the Acid Plant Stack, to be discharged to atmosphere that exceed the value calculated by $E = 55.0 * P^{0.11} - 40$, where E is the rate of emissions in pounds per hour and P is the process weight rate in tons per hour (ARM 17.8.310).
- O.3. ASARCO shall not cause or authorize emissions of lead to be discharged to the atmosphere from the Acid Plant Stack that exceed 0.0698 lb of lead per hour (Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000).
- O.4. ASARCO shall not cause or authorize emissions of sulfur dioxide (SO₂) to be discharged to the atmosphere from the Acid Plant Stack (8P) that exceed 620 ppm (dry basis @ standard conditions) averaged over 6 hours (ARM 17.8.715).
- O.5. ASARCO shall utilize the Sinter Plant Cottrell (7V), Acid Plant (8P), and associated ventilation equipment to supply ventilation to and control emissions associated with the strong gas (high SO₂ concentration) from the Sinter Plant (Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000).
- O.6. ASARCO shall maintain a minimum airflow of 30,000 acfm from the Acid Plant, Hot Cottrell (ESP), and associated ventilation equipment, when the Sinter Machine, Acid Plant, Cottrell, and associated equipment are operating. (Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000).

- O.7. ASARCO shall install and operate device(s) to monitor and record the hours of fan operation (each quarter) for the Acid Plant Hot Gas Fan and the Acid Plant Main Blower. (Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000).
- O.8. ASARCO shall not cause or authorize emissions to be discharged to the atmosphere from the Sinter Plant D&L Stack (7P) that exhibit an opacity of 40% or greater averaged over 6 consecutive minutes (ARM 17.8.304(1)).
- O.9. ASARCO shall not cause or authorize emissions of particulate matter from the Sinter Plant D&L Stack (7P) to be discharged to atmosphere that exceed the value calculated by $E = 55.0 * P^{0.11} - 40$, where E is the rate of emissions in pounds per hour and P is the process weight rate in tons per hour (ARM 17.8.310).
- O.10. ASARCO shall not cause or authorize emissions of lead to be discharged to the atmosphere from the Sinter Plant D&L Stack (7P) that exceed 1.8176 lb of lead per hour (Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000).
- O.11. ASARCO shall utilize the Sinter Plant (D&L) Baghouse and associated ventilation equipment to supply ventilation to and control emissions from the Sinter Machine and associated equipment (Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000).
- O.12. ASARCO shall maintain a minimum airflow of 112,000 acfm through the Sinter Plant (D&L) Baghouse and associated ventilation equipment when the Sinter Machine is operating (Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000).
- O.13. ASARCO shall install and operate device(s) to monitor and record the hours of fan operation (each quarter) for the Sinter Plant Baghouse Fan, the Sinter Plant #5 Ventilation Fan, and the Sinter Plant Stack Fan (Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000).

Compliance Demonstration

- O.14. As required by the Department, ASARCO shall perform a Method 9 test in accordance with the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106); except that ASARCO shall perform a Method 9 test semi-annually on the Acid Plant Stack and annually on the Sinter Plant (D&L) Baghouse. Each observation period shall be a minimum of 6 minutes, unless any one reading is greater than the relevant opacity limit (40% or 20% as applicable); then the observation period shall be a minimum of 20 minutes or until a violation of the standard has been documented, whichever is a shorter period of time.
- O.15. ASARCO shall, on an ongoing basis, operate and maintain the Sinter Plant (D&L) Baghouse and associated ventilation equipment (#5/Cyclone system and Weak Gas System) in accordance with the Baghouse Inspection and Maintenance Program.
- O.16. ASARCO shall perform a Method 5 test every 2 years in accordance with the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106).
- O.17. ASARCO shall perform a Method 12 test annually in accordance with the Montana Source Test Protocol and Procedures Manual to monitor compliance with O.3 and O.10 (ARM 17.8.106).

- O.18. ASARCO shall perform a Method 2 test annually in accordance with the Montana Source Test Protocol and Procedures Manual to monitor compliance with O.6 and O.12 (ARM 17.8.106).
- O.19. ASARCO shall monitor compliance with the requirements of O.4 by using data from the CEMS required by Part I, Sections 4, 5, and 6 of the SO₂ Control Plan (based upon successful completion of RATA's and also satisfying all of the quarterly flowrate QA/QC requirements).
- O.20. ASARCO is required to maintain normal operations demonstrating compliance with Section III.O.5.
- O.21. ASARCO shall, on an ongoing basis, monitor and record the hours of fan operation each quarter for the Acid Plant Hot Gas Fan, the Acid Plant Main Blower, the Sinter Plant (D&L) Baghouse Fan, the Sinter Plant #5 Ventilation Fan, and the Sinter Plant Stack Fan.

Recordkeeping

- O.22. ASARCO shall maintain all test reports (Method 2, Method 5, Method 9, Method 12, etc.) on-site. All test reports must satisfy the requirements of the Air Quality Preconstruction Permit, Section II (C)(12), and be submitted to the Department in accordance with the Montana Source Protocol and Procedures Manual.
- O.23. ASARCO shall maintain all data collected by the CEMS required by the SO₂ Control Plan such that they are able to monitor compliance with requirement O.4 of this permit. All CEMS data shall be maintained on site by ASARCO for at least 5 years after the date of data generation. This electronic data shall be made available to Department personnel upon request and shall be submitted to the Department consistent with Part I, section 7, of the SO₂ Control Plan (Primary SO₂ NAAQS Stipulation – March 18, 1994).
- O.24. ASARCO is not required to perform recordkeeping for O.5
- O.25. ASARCO shall maintain on-site records of all inspection and maintenance activities performed in accordance with Baghouse Inspection and Maintenance Program.
- O.26. ASARCO shall record and maintain on site the hours of fan operation each quarter for the Acid Plant Hot Gas Fan, the Acid Plant Main Blower, the Sinter Plant (D&L) Baghouse Fan, the Sinter Plant #5 Ventilation Fan, and the Sinter Plant Stack Fan.

Reporting

- O.27. The annual compliance certification report required by Section V.B must contain a certification statement for the above applicable requirements. The semiannual reporting shall provide:
 - a. A summary of results for all source testing performed within the reporting period;
 - b. A summary of the 6-hour average SO₂ emissions (ppm dry basis @ std. conditions) for the Acid Plant Stack; and
 - c. Any corrective actions taken as a result of the inspections and maintenance required by the Baghouse Inspection and Maintenance Program.

The quarterly reporting shall provide the hours of fan operation for all fans identified in O.26.

P. EU024 - Sinter Storage Building Baghouse (21P*)

| Condition(s) | Pollutant / Parameter | Permit / SIP Limit | Compliance Demonstration | | Reporting Requirements |
|---------------------------|----------------------------------|--|--------------------------|--------------------------|------------------------|
| | | | Method | Frequency | |
| P.1, P.7, P.8, P.12, P.16 | Opacity | 20% | Method 9 | As Required by the dept. | Semi-annual |
| | | | Baghouse I&M | Baghouse I&M | Semi-annual |
| P.2, P.8, P.13, P.16 | Emission Control and Ventilation | The Sinter Storage Building Baghouse shall supply ventilation to and control emissions from the Sinter Storage Building, Breaking Floor Building (8Va), Blast Furnace Charge Building (8Vb), and sinter drop into storage bin. | Baghouse I&M Program | Baghouse I&M Program | Semi-annual |
| P.3, P.9, P.12, P.16 | Minimum Airflow | The Sinter Storage Building Baghouse shall maintain a minimum airflow of 35,000 ACFM when the Blast Furnace and Sinter Plant are Operating. | Method 2 | Annually | Semi-annual |
| P.4, P.10, P.14, P.16 | Hours of Baghouse Fan Operation | Monitor and record the hours of fan operation on the Sinter Storage Baghouse Fan. | Lead Control Plan | Lead Control Plan | Quarterly |
| P.5, P.11, P.15, P.16 | Baghouse Stack | Emissions from the Sinter Storage Building Baghouse shall be vented to the Dross Plant Baghouse Stack. | Lead Control Plan | Lead Control Plan | Annual Certification |
| P.6, P.8, P.13, P.16 | Baghouse Dust Recovery | Sinter Storage Building Baghouse capture shall be recovered from the baghouse hopper by vacuum truck, or other means, which will minimize emissions. | Baghouse I&M Program | Baghouse I&M Program | Semi-annual |

***The Sinter Storage Building Baghouse formerly vented to its own stack (9P), but now vents to the Dross Plant Baghouse Stack (21P).**

Conditions

- P.1. ASARCO shall not cause or authorize emissions to be discharged to the atmosphere from the Sinter Storage Building Baghouse (21P), that exhibit an opacity of 20% or greater averaged over 6 consecutive minutes (ARM 17.8.304(2)).
- P.2. ASARCO shall utilize the Sinter Storage Building Baghouse and associated ventilation equipment to supply ventilation to and control emissions from the Sinter Storage Building, Breaking Floor Building (8Va), Blast Furnace Charge Building (8Vb), and sinter drop into storage bin (Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000).
- P.3. ASARCO shall maintain a minimum airflow of 35,000 acfm through the Sinter Storage Building Baghouse and associated ventilation equipment when the Blast Furnace and Sinter Plant are operating (Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000).

- P.4. ASARCO shall install and operate device(s) to monitor and record the hours of fan operation each quarter for the Sinter Storage Baghouse Fan (Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000).
- P.5. ASARCO shall vent the emissions from the Sinter Storage Building Baghouse to the Dross Plant Baghouse Stack (21P) (Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000).
- P.6. ASARCO shall utilize a Vacuum Truck, or other means that will minimize emissions, to recover dust captured in the Sinter Storage Building Baghouse Hopper (Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000).

Compliance Demonstration

- P.7. As required by the Department, ASARCO shall perform a Method 9 test on the stack venting to the atmosphere in accordance with the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106). Each observation period shall be a minimum of 6 minutes, unless any one reading is greater than the relevant opacity limit (20%); then the observation period shall be a minimum of 20 minutes or until a violation of the standard has been documented, whichever is a shorter period of time.
- P.8. ASARCO shall, on an ongoing basis, operate and maintain the Sinter Storage Building Baghouse and associated ventilation equipment in accordance with the Baghouse Inspection and Maintenance Program.
- P.9. Annually ASARCO shall perform a Method 2 test in accordance with the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106). Alternatively, ASARCO may monitor compliance with this requirement by performing a Method 2A, 2B, 2C, or 2D test.
- P.10. ASARCO shall, on an ongoing basis, monitor and record the hours of fan operation each quarter for the Sinter Storage Building Baghouse.
- P.11. ASARCO shall certify annually that the Sinter Storage Building Baghouse emissions are vented to the Dross Plant Stack.

Recordkeeping

- P.12. ASARCO shall maintain all test reports (Method 2, Method 9, etc.) on-site. All test reports must be submitted to the Department in accordance with the Montana Source Test Protocol and Procedures Manual.
- P.13. ASARCO shall maintain on-site records of all inspection and maintenance activities performed in accordance with the Baghouse Inspection and Maintenance Program.
- P.14. ASARCO shall record and maintain on site the hours of fan operation each quarter for the Sinter Storage Building Baghouse Fan.
- P.15. ASARCO is not required to perform recordkeeping for requirement P.5.

Reporting

- P.16. The annual compliance certification report required by Section V.B must contain a certification statement for the above applicable requirements. The semiannual reporting shall provide a summary of results for all source testing performed within the reporting period, and any

corrective actions taken as a result of the inspections and maintenance required by the Baghouse Inspection and Maintenance Program. The quarterly reporting shall provide the hours of baghouse fan operation.

Q. EU025-EU021 - Acid Dust Temporary Accumulation

EU025 - Acid Dust Bin (*7P)

EU021 - Acid Dust Bin Building (17V)

| Condition(s) | Pollutant/Parameter | Permit / SIP Limit | Compliance Demonstration Method | Frequency | Reporting Requirements |
|--------------------------------|--|---|---------------------------------|--------------------------|------------------------|
| Q.1, Q.6, Q.7, Q.9, Q.10, Q.11 | Opacity | 20% | Method 9 | As Required by the Dept. | Semi-annual |
| | | | Baghouse I&M | Baghouse I&M | Semi-annual |
| Q.2, Q.8, Q.9, Q.11 | Particulate Matter | $E = 4.10 * P^{0.67}$ | Method 5 | As Required by the Dept. | Semi-annual |
| Q.3, Q.7, Q.10, Q.11 | Acid Dust Accumulation for the new Acid Dust Handling System | 130-ton Acid Dust Bin. | Baghouse I&M Program | Baghouse I&M Program | Semi-annual |
| Q.4, Q.7, Q.10, Q.11 | 130-ton Acid Dust Bin Emission Control | Acid Dust Bin Baghouse. | Baghouse I&M | Baghouse I&M Program | Semi-annual |
| Q.5, Q.7, Q.10, Q.11 | Acid Dust Bin Baghouse Emissions | Exhaust discharged to the inlet of the Sinter Plant Baghouse. | Baghouse I&M Program | Baghouse I&M Program | Semi-annual |

***The Acid Dust Bin Baghouse formerly vented to its own stack, 17P, but currently vents to the inlet of the Sinter Plant Baghouse, and subsequently vents to 7P. The Acid Dust Bin and the Acid Dust Bin Baghouse are enclosed by the Acid Dust Bin Building.**

Conditions

- Q.1. ASARCO shall not cause or authorize emissions to be discharged to the atmosphere from the Acid Dust Bin Baghouse (7P), that exhibit an opacity of 20% or greater averaged over 6 consecutive minutes (ARM 17.8.304(2)).
- Q.2. ASARCO shall not cause or authorize emissions of particulate matter from the Acid Dust Bin Baghouse to be discharged to atmosphere that exceed the value calculated by $E = 4.10 * P^{0.67}$, where E is the rate of emissions in pounds per hour and P is the process weight rate in tons per hour (ARM 17.8.310).
- Q.3. ASARCO may use the 130-ton Acid Dust Bin as an accumulation location for acid dust from the Sinter Plant Baghouse and Hot Cottrell (ARM 17.8.710).
- Q.4. ASARCO shall utilize the Acid Dust Bin Baghouse to control emissions from the 130-ton Acid Dust Bin when the Acid Dust Bin is used to accumulate dust from the Sinter Plant Baghouse and Hot Cottrell (ARM 17.8.710).
- Q.5. ASARCO shall vent the exhaust from the Acid Dust Bin Baghouse to the inlet of the Sinter Plant (D&L) Baghouse.

Compliance Demonstration

- Q.6. As required by the Department, ASARCO shall perform a Method 9 test on the stack venting to atmosphere in accordance with the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106). Each observation period shall be a minimum of 6 minutes, unless any one reading is greater than the relevant opacity limit (20%); then the observation period shall be a minimum of 20 minutes or until a violation of the standard has been documented, whichever is a shorter period of time.
- Q.7. ASARCO shall, on an ongoing basis, operate and maintain the Acid Dust Bin Baghouse and associated ventilation equipment in accordance with the Baghouse Inspection and Maintenance Program.

- Q.8. As required by the Department, ASARCO shall perform a Method 5 test in accordance with the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106). Particulate matter emissions would be additive from all sources venting to the tested stack. Compliance with the emission limit will be determined by taking additive emissions into account.

Recordkeeping

- Q.9. ASARCO shall maintain all Method 5 and Method 9 test reports on-site. All test reports must be submitted to the Department in accordance with the Montana Source Test Protocol and Procedures Manual.
- Q.10. ASARCO shall maintain on-site records of all inspection and maintenance activities performed in accordance with the Baghouse Inspection and Maintenance Program.

Reporting

- Q.11. The annual compliance certification report required by Section V.B must contain a certification statement for the above applicable requirements. The semiannual reporting shall provide:
- A summary of results of any source testing that was performed during the reporting period; and
 - Any corrective actions taken as a result of the inspections and maintenance required by the Baghouse Inspection and Maintenance Program.

R. EU027 - Acid Dust Handling & Conveying System & Agglomerator Building (6P)

| Condition(s) | Pollutant / Parameter | Permit / SIP Limit | Compliance Demonstration Method Frequency | | Reporting Requirements |
|---------------------------------|---|--|--|--------------------------|------------------------|
| R.1, R.6, R.7, R.10, R.11, R.14 | Opacity | 20% | Method 9 | As Required by the Dept. | Semi-annual |
| | | | Baghouse I&M | Baghouse I&M Program | Semi-annual |
| R.2, R.8, R.12, R.14 | Natural Draft Opening | 14 ft ² | Direct Measurement | As Required by the Dept. | Semi-annual |
| R.3, R.7, R.11, R.14 | Acid Dust Handling and Conveying System | Installation and Operation of "System" to handle and convey acid dust from the sinter plant cyclone, sinter plant baghouse system, & sinter plant hot cottrell system. | Baghouse I&M Program | Baghouse I&M Program | Semi-annual |
| R.4, R.7, R.11, R.14 | Agglomerator Building Ventilation, Dustmaster Emissions, and Surge Bin Baghouse Emissions | Ventilated into CSHB; controlled by the CSHB baghouses, and vented out CSHB stack (6P) | Baghouse I&M Program | Baghouse I&M Program | Semi-annual |
| R.5, R.9, R.13, R.14 | Quarterly Hours of Baghouse Fan Operation for the Acid Dust Handling System Fans. | Monitor and record quarterly hours of fan operation. | Lead Control Plan | Lead Control Plan | Quarterly |

Conditions

- R.1. ASARCO shall not cause or authorize emissions to be discharged to the atmosphere from the Acid Dust Handling and Conveying System and the Agglomerator Building that exhibit an opacity of 20% or greater averaged over 6 consecutive minutes (ARM 17.8.304(2)).
- R.2. ASARCO shall not allow the Natural Draft Opening (NDO) of the Agglomerator Building to exceed 14 ft² (ARM 17.8.710).
- R.3. ASARCO shall install and operate an Acid Dust Handling and Conveying System to handle dust captured by the Sinter Plant Cyclone, the Sinter Plant (D&L) Baghouse System, and the Sinter Plant (ESP) Hot Cottrell System (ARM 17.8.710).
- R.4. ASARCO shall provide ventilation and emission control to the Surge Bin and Dustmaster, both within the Agglomerator Building, by routing emissions to the Concentrate Storage and Handling Building (CSHB), and then through the CSHB baghouses and stack (ARM 17.8.715).
- R.5. ASARCO shall install and operate device(s) to monitor and record the hours of fan operation each quarter for the Acid Dust Handling System Fan (Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 200).

Compliance Demonstration

- R.6. As required by the Department, ASARCO shall perform a Method 9 test in accordance with the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106). Each observation period shall be a minimum of 6 minutes, unless any one reading is greater than the relevant opacity limit (20%); then the observation period shall be a minimum of 20 minutes or until a violation of the standard has been documented, whichever is a shorter period of time.
- R.7. ASARCO shall operate and maintain the Acid Dust Handling and Conveying System and associated ventilation equipment (Surge Bin Baghouse) in accordance with the Baghouse Inspection and Maintenance Program.
- R.8. As required by the Department, ASARCO shall determine the Natural Draft Opening (NDO) of the Agglomerator Building. ASARCO shall certify annually that the NDO of the Agglomerator Building is less than or equal to 14 ft².
- R.9. ASARCO shall, on an ongoing basis, monitor and record the hours of fan operation each quarter for the Acid Dust Handling & Conveying System Fans.

Recordkeeping

- R.10. ASARCO shall maintain all Method 9 test reports on-site. All test reports must be submitted to the Department in accordance with the Montana Source Test Protocol and Procedures Manual.
- R.11. ASARCO shall maintain on-site records of all inspection and maintenance activities performed in accordance with the Baghouse Inspection and Maintenance Program.
- R.12. NDO determinations shall be maintained on-site, and shall be made available to the Department upon request.
- R.13. ASARCO shall record and maintain on site the hours of fan operation each quarter for the Acid Dust Handling & Conveying System Fans.

Reporting

- R.14. The annual compliance certification report required by Section V.B must contain a certification statement for the above applicable requirements as well as the tons of acid dust handled, and the tons of material handled through the Acid Dust Agglomerator Building. The semiannual reporting shall provide a summary of results for all source testing performed within the reporting period, and any corrective actions taken as a result of the inspections and maintenance required by the Baghouse Inspection and Maintenance Program. The quarterly reporting shall provide the hours of Acid Dust Handling and Conveying System fan operation for each fan.

S. EU028 - Outdoor Sinter Storage and Sinter Handling (8Vf)

| Condition(s) | Pollutant / Parameter | Permit / SIP Limit | Compliance Method | Demonstration Frequency | Reporting Requirements |
|---------------------------|---------------------------|---|-----------------------------------|--------------------------|------------------------|
| S.1, S.5, S.6, S.10, S.13 | Opacity | 20% | Method 9 | As Required by the Dept. | Semi-annual |
| | | Reasonable Precautions | Visual Surveys | Weekly | Semi-annual |
| S.2, S.7, S.10, S.13 | Particulate Matter | $E = 4.10 * P^{0.67}$ | Normal Operations | Annual Certification | Annual Certification |
| S.3, S.8, S.11, S.13 | Sinter Stored Outdoors | ASARCO shall not exceed 3069 tons of sinter in the outdoor sinter storage area. | Area Limitation for Stored Sinter | Weekly | Quarterly |
| S.4, S.9, S.12, S.13 | Sinter Handling (Dropped) | No more than 5500 tons of sinter shall be dropped outdoors by payloaders per quarter. | Plant Accounting Records | Quarterly | Quarterly |

Conditions

- S.1. ASARCO shall not cause or authorize the handling, transportation, or storage of Sinter outdoors unless reasonable precautions to control emissions of particulate matter are taken. Such emissions of airborne particulate matter from activities specified in S.3 and S.4 shall not exhibit an opacity of 20% or greater averaged over 6 consecutive minutes, unless otherwise specified by rule or in this permit (ARM 17.8.308(1)).
- S.2. ASARCO shall not cause or authorize emissions of particulate matter from the outdoor handling and storage of Sinter to be discharged to atmosphere that exceed the value calculated by $E = 4.10 \times P^{0.67}$, where E is the rate of emissions in pounds per hour and P is the process weight rate in tons per hour (ARM 17.8.310).
- S.3. ASARCO shall not exceed 3069 tons of sinter in the outdoor sinter storage area (Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000).
- S.4. ASARCO shall not drop more than 5500 tons of sinter outdoors by payloaders per quarter (Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000).

Compliance Demonstration

- S.5. As required by the Department, ASARCO shall perform a Method 9 test in accordance with the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106). Each observation period shall be a minimum of 6 minutes, unless any one reading is greater than the opacity limit; then the observation period shall be a minimum of 20 minutes or until a violation of the standard has been documented, whichever is a shorter period of time.
- S.6. For the purpose of certification, ASARCO shall perform weekly visual surveys of the visible emissions from the material handling operation. Conducting a visual survey does not relieve ASARCO from the liability of a violation documented with a Method 9 test. The person conducting the visual survey does not have to be an EPA Method 9 certified observer; however, the individual must be familiar with the procedures of EPA Method 9, including the proper location from which to observe visible emissions. If excessive fugitive emissions are identified, ASARCO shall initiate efforts to minimize or curtail the emissions.

- S.7. ASARCO is required to maintain normal operations to monitor compliance with S.2.
- S.8. ASARCO shall monitor and record the tons of Sinter Stored in the outdoor sinter storage area at least once weekly. Sinter stored in the Direct Smelt Building shall count towards the limitation identified in requirement S.3 of this permit.
- S.9. ASARCO shall utilize plant accounting records to monitor compliance with S.4.

Recordkeeping

- S.10. All test reports must be maintained on site and must be submitted to the Department in accordance with the Montana Source Test Protocol and Procedures Manual. A log of the weekly visual survey results shall be maintained on site and submitted to the Department upon request. The log shall include the date, time, observer's initials, and any corrective actions that have been taken.
- S.11. ASARCO shall record the tons of Sinter stored outdoors weekly.
- S.12. ASARCO shall collect and record the total tons of sinter dropped outdoors by payloaders (Section 8(H) Lead Control Plan).

Reporting

- S.13. The annual compliance certification report required by Section V.B must contain a certification statement for the above applicable requirements. The semiannual reporting shall provide the results from any Method 9 tests performed as well as all weekly visual survey results. Weekly visual survey results shall also provide an estimation of the amount of sinter stored outdoors. The quarterly reporting shall provide the tonnage of sinter handled by payloaders.

T. EU029 - Direct Smelt Bins & Direct Smelt Building (8Vi)

| Condition(s) | Pollutant / Parameter | Permit / SIP Limit | Compliance Demonstration Method | Frequency | Reporting Requirements |
|-----------------------------|---|---|--------------------------------------|----------------------------|------------------------|
| T.1, T.10, T.11, T.18, T.23 | Opacity | 20% | Method 9 | As Required by the dept. | Semi-annual |
| | | Reasonable Precautions | Visual Surveys | Weekly | Semi-annual |
| T.2, T.12, T.18, T.23 | Particulate Matter | $E = 4.10 * P^{0.67}$ | Normal Operations | Annual Certification | Annual Certification |
| T.3, T.13, T.19, T.23 | Lead emissions from charging dust at the Direct Smelt Bins and the Direct Smelt Building | 96.8 lb Pb per quarter as determined by Equation 1 (Lead Control Plan). | Payload Load Cell Measurement System | Quarterly | Quarterly |
| T.4, T.13, T.19, T.23 | Lead emissions from charging Dust at the Direct Smelt Bins and the Direct Smelt Building during the Afternoon Shift | 4.3 lb Pb per quarter (as determined by Equation 1 of Lead Control Plan). Unutilized Night Shift emission allocations may be transferred to the Afternoon Shift. | Payload Load Cell Measurement System | Quarterly | Quarterly |
| T.5, T.13, T.19, T.23 | Lead emissions from charging Dust at the Direct Smelt Bins and the Direct Smelt Building during the Night Shift | 3.8 lb Pb per quarter (as determined by Equation 1 of Lead Control Plan). | Payload Load Cell Measurement System | Quarterly | Quarterly |
| T.6, T.14, T.21, T.23 | Non-dust Material charged to the Direct Smelt Bins and the Direct Smelt Building | Maximum of 7315 tons per quarter as determined by plant accounting records. | Plant Accounting Records | Quarterly | Quarterly |
| T.7, T.15, T.20, T.23 | Payload drop height During the charging of Dust at the Direct Smelt Bins | Average payload drop height shall not exceed 5 feet, (as determined by visual observation). | Visual Surveys & Lead Control Plan | Weekly & Lead Control Plan | Semi-annual |
| T.8, T.16, T.19, T.23 | Payload bucket size | The payloaders used in the charging of Dust at the Direct Smelt Bins shall have bucket sizes sufficient to ensure that the average bucket size is 2.0 cubic yards or greater. | Payload Load Cell Measurement System | Ongoing | Semi-annual |
| T.9, T.17, T.22, T.23 | Wind Speed | Dust shall not be charged at the Direct Smelt Bins when the hourly average wind speed at the ASARCO meteorological monitoring site is greater than 12.0 mph for the hour prior to the charging of the material. | Meteorological Monitoring Site | Hourly | Semi-annual |

Conditions

- T.1. ASARCO shall not cause or authorize the handling, transportation, or storage of Direct Smelt Materials unless reasonable precautions to control emissions of particulate matter are taken. Such emissions of airborne particulate matter from any stationary source shall not exhibit an opacity of 20% or greater averaged over 6 consecutive minutes, unless otherwise specified by rule or in this permit (ARM 17.8.308(1)).
- T.2. ASARCO shall not cause or authorize emissions of particulate matter, from the handling of Direct Smelt Materials, to be discharged to atmosphere that exceed the value calculated by $E = 4.10 \times P^{0.67}$, where E is the rate of emissions in pounds per hour and P is the process weight rate in tons per hour (ARM 17.8.310).
- T.3. ASARCO shall not exceed 96.8 pounds per quarter of lead emissions from charging dust at the Direct Smelt Bins and the Direct Smelt Building as determined by Equation 1 (Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000).
- T.4. ASARCO shall not exceed 4.3 pounds per quarter of lead emissions from charging dust at the Direct Smelt Bins and the Direct Smelt Building during the afternoon shift as determined by Equation 1. Unutilized night shift emission allocations may be transferred to the afternoon shift (Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000).
- T.5. ASARCO shall not exceed 3.8 pounds per quarter of lead emissions from charging dust at the Direct Smelt Bins and the Direct Smelt Building during the night shift as determined by Equation 1. Unutilized night shift emission allocations may be transferred to the afternoon shift (Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000).
- T.6. ASARCO shall not charge more than 7315 tons of non-dust material to the Direct Smelt Bins and Direct Smelt Building per quarter as determined by plant accounting records (Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000).
- T.7. ASARCO shall not exceed an average payload drop height of 5 feet when charging dust at the Direct Smelt Bins and the Direct Smelt Building as determined by visual observation (Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000).
- T.8. ASARCO shall utilize payloaders with an average bucket size equal to or greater than 2.0 cubic yards when charging dust to the Direct Smelt Bins and the Direct Smelt Building (Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000).
- T.9. ASARCO shall not charge dusts to the Direct Smelt Bins when the hourly-average wind speed at the ASARCO meteorological monitoring site is greater than 12.0 mph for the hour prior to the charging of dust (Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000).

Compliance Demonstration

- T.10. As required by the Department, ASARCO shall perform a Method 9 test in accordance with the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106). Each observation period shall be a minimum of 6 minutes, unless any one reading is greater than the opacity limit; then the observation period shall be a minimum of 20 minutes or until a violation of the standard has been documented, whichever is a shorter period of time.
- T.11. For the purpose of certification, ASARCO shall perform weekly visual surveys of the visible emissions from the material handling operation. Conducting a visual survey does not relieve ASARCO from the liability of a violation documented with a Method 9 test. The person conducting the visual survey does not have to be an EPA Method 9 certified observer; however, the individual must be familiar with the procedures of EPA Method 9, including the proper location from which to observe visible emissions. If excessive fugitive emissions are identified, ASARCO shall initiate efforts to minimize or curtail the emissions.
- T.12. ASARCO is required to maintain normal operations to monitor compliance with T.2.
- T.13. ASARCO shall utilize data from the payloaders Load Cell System, and Equation 1, to determine lead emissions and monitor compliance with T.3, T.4, and T.5.
- T.14. ASARCO shall utilize plant accounting records to monitor compliance with T.6.
- T.15. ASARCO shall monitor compliance with T.7 by performing weekly visual surveys of the average payloaders drop height. If an average payloaders drop height greater than 5 feet is determined as a result of the weekly survey, ASARCO shall initiate corrective actions.
- T.16. ASARCO shall utilize data from the payloaders Load Cell System to monitor compliance with T.8.
- T.17. ASARCO shall utilize data from the payloaders Load Cell System and the on-site meteorological station to monitor compliance with T.9.

Recordkeeping

- T.18. All test reports must be maintained on site and must be submitted to the Department in accordance with the Montana Source Test Protocol and Procedures Manual. A log of the weekly visual survey results shall be maintained on site and submitted to the Department upon request. The log shall include the date, time, observer's initials, and any corrective actions that have been taken.
- T.19. ASARCO shall collect and record the date, time, tonnage, material location, and material identifier from the payloaders Load Cell Systems.
- T.20. ASARCO shall record the average payloaders drop height observed during the weekly visual surveys of the Direct Smelt Bins and the Direct Smelt Building; the payloaders drop height visual survey results may be recorded in the log maintained for visible emissions.
- T.21. ASARCO shall maintain all plant accounting records demonstrating compliance with T.6.
- T.22. ASARCO shall collect and record all data from their on-site meteorological station.

Reporting

- T.23. The annual compliance certification report required by Section V.B must contain a certification statement for the above applicable requirements. The semiannual reporting shall provide the results from any Method 9 tests performed during the reporting period, the hourly average wind speed in the hour prior to charging dust, and all weekly visual survey results. The quarterly reporting shall provide:
- a. The total tons of dust (charged) by payload.
 - b. The total amount of non dust handled.
 - c. The total lead emissions from charging dust.
 - d. The tons of dust charged during the afternoon shift, and the lead emissions from charging dust during the afternoon shift.
 - e. The tons of dust charged during the night shift, and the lead emissions from charging dust during the night shift.

U. EU030 - Coke Handling (29V)

| Condition(s) | Pollutant / Parameter | Permit / SIP Limit | Compliance Demonstration Method Frequency | | Reporting Requirements |
|----------------------------|-----------------------|--------------------------|--|--------------------------|------------------------|
| U.1,U.3,U.4, U.6, U.8 | Opacity | 20% | Method 9 | As Required by the Dept. | Semi-annual |
| | | Reasonable Precautions | Visual Surveys | Weekly | Semi-annual |
| U.2, U.5, U.6, U.7, U.8 | Particulate Matter | $E = 55 * P^{0.11} - 40$ | Normal Operations | Annual Certification | Annual Certification |

Conditions

- U.1. ASARCO shall not cause or authorize the handling, transportation, or storage of Coke unless reasonable precautions to control emissions of particulate matter are taken. Such emissions of airborne particulate matter from any stationary source shall not exhibit an opacity of 20% or greater averaged over 6 consecutive minutes, unless otherwise specified by rule or in this permit (ARM 17.8.308(1)).
- U.2. ASARCO shall not cause or authorize particulate matter to be discharged from any operation, process, or activity into the outdoor atmosphere in excess of the maximum hourly allowable emissions of particulate matter calculated using $E = 55.0 * P^{0.11} - 40$, where E is the rate of emissions in pounds per hour and P is the process weight rate in tons per hour (ARM 17.8.310).

Compliance Demonstration

- U.3. As required by the Department, ASARCO shall perform a Method 9 test in accordance with the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106). Each observation period shall be a minimum of 6 minutes, unless any one reading is greater than the opacity limit; then the observation period shall be a minimum of 20 minutes or until a violation of the standard has been documented, whichever is a shorter period of time.
- U.4. For the purpose of certification, ASARCO shall perform weekly visual surveys of the visible emissions from the material handling operation. Conducting a visual survey does not relieve ASARCO from the liability of a violation documented with a Method 9 test. The person conducting the visual survey does not have to be an EPA Method 9 certified observer; however, the individual must be familiar with the procedures of EPA Method 9, including the proper location from which to observe visible emission. If excessive fugitive emissions are identified, ASARCO shall initiate efforts to minimize or curtail the emissions.
- U.5. ASARCO is required to maintain normal operations to monitor compliance with U.2.

Recordkeeping

- U.6. All test reports must be maintained on site and must be submitted to the Department in accordance with the Montana Source Test Protocol and Procedures Manual. A log of the weekly visual survey results shall be maintained on site and submitted to the Department upon request. The log shall include the date, time, observer's initials, and any corrective actions that have been taken.
- U.7. ASARCO shall monitor and record the tons of coke used in the sinter machine and the blast furnace, and the sulfur content for each.

Reporting

- U.8. The annual compliance certification report required by Section V.B must contain a certification statement for the tons of coke consumed at the sinter plant and the blast furnace. The semiannual reporting shall provide the results from any Method 9 tests performed during the reporting period, the weekly visual survey results, and the sulfur content of the coke.

V. EU031 - EU035 Blast Furnace Charge Building

EU031 - Blast Furnace Charge Building (8Vb)
EU032 - Portland Cement Silo Baghouse (21P)
EU033 - Blast Furnace Baghouse Dust Silo Baghouse (21P)

EU034 - Blast Furnace Charge Building Charge Hopper Baghouse (21P)
EU035 - Agglomerator Charge Hopper Baghouse (21P)

| Condition(s) | Pollutant / Parameter | Permit / SIP Limit | Compliance Demonstration Method | Frequency | Reporting Requirements |
|---|--|--|----------------------------------|--------------------------|------------------------|
| EU031 - Blast Furnace Charge Building | | | | | |
| V.1, V.12, V.16, V.20 | Opacity | 40% | Method 9 | As Required by the Dept. | Semi-annual |
| V.2, V.13, V.18, V.20 | Blast Furnace Charge Building Quarterly Fugitive Lead Emissions | 17.7 lbs Pb per quarter (using an emission factor of 0.0080 lb/hr and Equation 3 of App. G). | Monitoring and Recordkeeping | Ongoing | Semi-annual |
| V.3, V.14, V.19, V.20 | Maximum Blast Furnace Charge Building NDO | 1136 ft ² . | Direct Measurement | As Required by the Dept. | Semi-annual |
| EU032 - Portland Cement Silo Baghouse; EU033 - Blast Furnace Baghouse Dust Silo Baghouse | | | | | |
| V.4, V.12, V.16, V.20 | Opacity | 20% | Method 9 | As Required by the Dept. | Semi-annual |
| V.5, V.15, V.17, V.20 | Blast Furnace Baghouse Dust Storage Silo and the Portland Cement Storage Silo Emission Control | Separate Pulse-jet Baghouses. | Normal Operation and Maintenance | Ongoing | Semi-annual |
| V.6, V.15, V.17, V.20 | Emissions from Blast Furnace Baghouse Dust Silo and the Portland Cement Storage Silo Baghouses | Discharged to the Dross Plant Stack | Normal Operation and Maintenance | Ongoing | Semi-annual |
| EU034 - Blast Furnace Charge Building Agglomerator Charge Hopper Baghouse, EU035 - Blast Furnace Charge Building Agglomerators | | | | | |
| V.4, V.12, , V.16, V.20 | Opacity | 20% | Method 9 | As Required by the dept. | Semi-annual |
| V.7, V.15, V.17, V.20 | Agglomerator Charge Hopper Emissions | Controlled with a Pulse-jet Baghouse. | Normal Operation and Maintenance | Ongoing | Semi-annual |
| V.8, V.15, V.17, V.20 | Agglomerator Charge Hopper Baghouse Emissions | Discharged to the inlet of the Sinter Storage Baghouse. | Normal Operation and Maintenance | Ongoing | Semi-annual |

| Condition(s) | Pollutant / Parameter | Permit / SIP Limit | Compliance Demonstration Method | Frequency | Reporting Requirements |
|------------------------|---|--|----------------------------------|-----------|------------------------|
| V.9, V.15, V.17, V.20 | If Agglomerator is used to wet the dust prior to introduction to the charge car | Local Ventilation Provided at the inlet of the Agglomerators. | Normal Operation and Maintenance | Ongoing | Semi-annual |
| V.10, V.15, V.17, V.20 | Agglomerator Inlet Ventilation | Agglomerator Inlet Ventilation provided by and routed to the Sinter Storage Baghouse | Normal Operation and Maintenance | Ongoing | Semi-annual |
| V.11, V.15, V.17, V.20 | Agglomerator Bypass | If dust is fed directly to the blast furnace charge car, then agglomerator inlet ventilation shall be relocated to the charge car inlet. | Normal Operation and Maintenance | Ongoing | Semi-annual |

***Agglomerator Charge Hopper Baghouse exhausts to the inlet of the Sinter Storage Baghouse. Agglomerator Inlet Ventilation provided by a Ventilation Fan that vents to the inlet of the Sinter Storage Baghouse. The Sinter Storage Baghouse vents to the Dross Plant Stack.**

Conditions

- V.1. ASARCO shall not cause or authorize emissions to be discharged to the atmosphere from the Blast Furnace Charge Building (8Vb) that exhibit an opacity of 40% or greater averaged over 6 consecutive minutes (ARM 17.8.304(1)).
- V.2. ASARCO shall not cause or authorize fugitive lead emissions from the Blast Furnace Charge Building to exceed 17.7 lb per quarter (using an emission factor of 0.0080 lb/hr and Equation 3)(Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000).
- V.3. ASARCO shall not allow the Natural Draft Opening (NDO) of the Blast Furnace Charge Building to exceed 1136 ft² (Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000).
- V.4. ASARCO shall not cause or authorize emissions to be discharged to the atmosphere from the Blast Furnace Baghouse Dust Storage Silo Baghouse, the Portland Cement Storage Silo Baghouse, and the Agglomerator Charge Hopper Baghouse that exhibit an opacity of 20% or greater averaged over 6 consecutive minutes (ARM 17.8.304(2)).
- V.5. ASARCO shall control the emissions from the Blast Furnace Baghouse Dust Storage Silo, and the Portland Cement Storage Silo with separate pulse-jet baghouses (ARM 17.8.715).
- V.6. ASARCO shall direct the exhausts, discharged from the baghouses controlling emissions from the Blast Furnace Baghouse Dust Silo and the Portland Cement Storage Silo, to the Dross Plant Stack (ARM 17.8.715).
- V.7. ASARCO shall control the emissions from the Agglomerator Charge Hopper with a pulse-jet baghouse (ARM 17.8.715)
- V.8. ASARCO shall discharge the exhaust from the Agglomerator Charge Hopper Baghouse to the inlet of the Sinter Storage Baghouse (ARM 17.8.715).

- V.9. ASARCO shall provide local ventilation at the inlet of the agglomerators, whenever the agglomerators are used to wet the dust prior to introduction to the charge car, to control emissions (ARM 17.8.715).
- V.10. ASARCO shall direct the ventilation from the inlet of the agglomerators to the inlet of the Sinter Storage Baghouse (ARM 17.8.715).
- V.11. ASARCO shall relocate the agglomerator inlet ventilation to the inlet of the charge car whenever the agglomerator is bypassed and dust is fed directly to a blast furnace charge car (ARM 17.8.715).

Compliance Demonstration

- V.12. As required by the Department, ASARCO shall perform a Method 9 test in accordance with the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106). Each observation period shall be a minimum of 6 minutes, unless any one reading is greater than the relevant opacity limit (20% or 40%); then the observation period shall be a minimum of 20 minutes or until a violation of the standard has been documented, whichever is a shorter period of time.
- V.13. ASARCO shall monitor compliance with the lead emission limit, 17.7 lb/quarter, by monitoring and recording (logging) the hours of operation of the Blast Furnace Charge Building processes and activities (and using the emission factor of 0.0080 lb/hr) on an ongoing basis. ASARCO cannot exceed this emission limit, using the supplied emission factor, and operating 100% of the hours during a quarter.
- V.14. As required by the Department, ASARCO shall determine the Natural Draft Opening (NDO) of the Blast Furnace Charge Building. ASARCO shall certify annually that the NDO of the Blast Furnace Charge Building is less than or equal to 1136 ft².
- V.15. The compliance demonstration for Section V.5 through Section V.11 shall be normal operations and maintenance on an ongoing basis. ASARCO shall certify ongoing normal operations on a semi-annual basis and record any maintenance activities conducted for these sources.

Recordkeeping

- V.16. ASARCO shall maintain all Method 5 and Method 9 test reports on-site. All test reports must be submitted to the Department in accordance with the Montana Source Test Protocol and Procedures Manual.
- V.17. ASARCO shall maintain on-site records of normal operation and maintenance activities conducted for these sources.
- V.18. ASARCO shall maintain on-site records of the hours of operation for Blast Furnace Charge Building processes and activities. Records shall be submitted to the Department upon request.
- V.19. NDO determinations shall be maintained on-site, and shall be made available to the Department upon request.

Reporting

- V.20. The annual compliance certification report required by Section V.B must contain a certification statement for the above applicable requirements. The semiannual reporting shall provide a summary of results for all source testing performed within the reporting period, fugitive lead emissions from the Blast Furnace Charge Building for the reporting period, and a record of normal operation and any maintenance activities conducted for these sources.

W. EU037 - EU038 Blast Furnace Feed Floor

EU037 - Blast Furnace Feed Floor Controlled Emissions (16P)

EU038 - Blast Furnace Feed Floor Fugitive Emissions (9V)

| Condition(s) | Pollutant / Parameter | Permit / SIP Limit | Compliance Demonstration Method | Frequency | Reporting Requirements |
|-----------------------------------|--|---|---------------------------------|--------------------------|------------------------|
| W.1, W.10, W.11, W.17, W.18, W.22 | Opacity | 20% | Method 9 | As Required by the Dept. | Semi-annual |
| | | | Baghouse I&M | Baghouse I&M | Semi-annual |
| W.2, W.12, W.18, W.22 | Fugitive Particulate Matter (9V) | $E = 55.0 * P^{0.11} - 40$ | Normal Operations | Annual Certification | Annual Certification |
| W.3, W.13, W.19, W.22 | Blast Furnace Feed Floor Quarterly Fugitive (9V) Lead Emission Limit | 56.0 lbs. Pb per quarter (using an emission factor of 0.0254 lb/hr). | Monitoring and Recordkeeping | Ongoing | Semi-annual |
| W.4, W.11, W.18, W.22 | Emissions from Blast Furnace Feed Floor | Controlled by Blast Furnace Baghouse and associated ventilation equipment | Baghouse I&M Program | Baghouse I&M Program | Semi-annual |
| W.5, W.11, W.18, W.22 | Feed Floor Enclosure | Install and maintain a ventilated enclosure, large enough to accept a charge car, around the top of each blast furnace. The feed floor is to include the charge car enclosures. | Baghouse I&M Program | Baghouse I&M Program | Semi-annual |
| W.6, W.14, W.20, W.22 | Natural Draft Openings | $NDO \leq 338 \text{ ft}^2$ for each enclosure | Direct Measurement | As Required by the Dept. | Semi-annual |
| W.7, W.15, W.17, W.22 | Blast Furnace Baghouse & Assoc. Ventilation Equip. Minimum Airflow | 249,000 ACFM when the Blast Furnace Feed Floor is operating. | Method 2 | Annually | Semi-annual |
| W.8, W.15, W.17, W.22 | Minimum Airflow for Each Enclosure | 32,000 ACFM. | Method 2 | As Required by the Dept. | Semi-annual |
| W.9, W.16, W.21, W.22 | Fan operating hours | Monitor and record the hours of fan operation of the Blast Furnace Feed Floor Enclosure Ventilation Fan. | Lead Control Plan | Quarterly | Quarterly |

Conditions

- W.1. ASARCO shall not cause or authorize emissions to be discharged to the atmosphere from the Blast Furnace Feed Floor that exhibit an opacity of 20% or greater averaged over 6 consecutive minutes (ARM 17.8.304(2)).
- W.2. ASARCO shall not cause or authorize fugitive particulate matter to be discharged from the Blast Furnace Feed Floor, into the outdoor atmosphere in excess of the maximum hourly allowable emissions of particulate matter calculated using $E = 55.0 * P^{0.11} - 40$, where E is the rate of emissions in pounds per hour and P is the process weight rate in tons per hour (ARM 17.8.310).
- W.3. ASARCO shall not cause or authorize fugitive lead emissions from the Blast Furnace Feed Floor to exceed 56.0 lb per quarter (using an emission factor of 0.0254 lb/hr and Equation 3)(Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000).

- W.4. ASARCO shall provide ventilation to and control emissions from the Blast Furnace Feed Floor by using the Blast Furnace Baghouse and associated ventilation equipment (Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000).
- W.5. ASARCO shall install and maintain a ventilated enclosure large enough to accept a charge car around the top of each blast furnace. The Blast Furnace Feed Floor is to include the charge car enclosures (Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000).
- W.6. ASARCO shall not allow the Natural Draft Opening (NDO) of the Blast Furnace Feed Floor Charge Car Enclosures to exceed 338 ft² for each enclosure (Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000).
- W.7. ASARCO shall maintain a minimum airflow of 249,000 acfm through the Blast Furnace Baghouse and associated ventilation equipment when the Blast Furnace Feed Floor is operating (Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000).
- W.8. ASARCO shall provide a minimum airflow of 32,000 acfm for the ventilation of each charge car enclosure when the Blast Furnace Feed Floor is operating (Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000).
- W.9. ASARCO shall install and operate device(s) to monitor and record the hours of fan operation each quarter for the Blast Furnace Feed Floor Enclosure Ventilation Fan (Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000).

Compliance Demonstration

- W.10. As required by the Department, ASARCO shall perform a Method 9 test in accordance with the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106). Each observation period shall be a minimum of 6 minutes, unless any one reading is greater than the relevant opacity limit (20%); then the observation period shall be a minimum of 20 minutes or until a violation of the standard has been documented, whichever is a shorter period of time.
- W.11. ASARCO shall, on an ongoing basis, operate and maintain the Blast Furnace Feed Floor Enclosure Ventilation Fan, the Blast Furnace Baghouse, and all associated ventilation equipment, in accordance with Baghouse Inspection and Maintenance Program.
- W.12. ASARCO is required to maintain normal operations to monitor compliance with W.2. ASARCO shall certify ongoing normal operations on an annual basis and record any maintenance activities conducted for this source.
- W.13. ASARCO shall monitor compliance with the lead emission limit, 56.0 lb/quarter, by monitoring and recording (logging) the hours of operation of the Blast Furnace Feed Floor (and using the emission factor of 0.0254 lb/hr with Equation 3) on an ongoing basis. ASARCO cannot exceed this emission limit, using the supplied emission factor, and operating 100% of the hours during a quarter.
- W.14. As required by the Department, ASARCO shall determine the Natural Draft Opening (NDO) of the Blast Furnace Feed Floor Charge Car Enclosures. ASARCO shall certify annually that the NDO of the Blast Furnace Feed Floor Charge Car Enclosures is less than or equal to 338 ft².
- W.15. Annually ASARCO shall perform a Method 2A, 2B, 2C, or 2D test in accordance with the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106).

W.16. ASARCO shall, on an ongoing basis, monitor and record the hours of fan operation each quarter for the Blast Furnace Feed Floor Enclosure Ventilation Fan.

Recordkeeping

W.17. ASARCO shall maintain all test reports (Method 2, Method 5, Method 9, etc.) on-site. All test reports must be submitted to the Department in accordance with the Montana Source Test Protocol and Procedures Manual.

W.18. ASARCO shall maintain on-site records of all maintenance activities including all inspection and maintenance activities performed in accordance with the Baghouse Inspection and Maintenance Program.

W.19. ASARCO shall maintain on-site records of the hours of operation of the Blast Furnace Feed Floor. Records shall be submitted to the Department upon request.

W.20. NDO determinations shall be maintained on-site, and shall be made available to the Department upon request.

W.21. ASARCO shall record and maintain on site the hours of fan operation each quarter for the Blast Furnace Feed Floor Enclosure Ventilation Fan.

Reporting

W.22. The annual compliance certification report required by Section V.B must contain a certification statement for the above applicable requirements. The semiannual reporting shall provide a summary of results for all source testing performed within the reporting period, fugitive lead emissions from the Blast Furnace Feed Floor, and any corrective actions taken as a result of the inspections and maintenance required by the Baghouse Inspection and Maintenance Program. The quarterly reporting shall provide the hours of Blast Furnace Feed Floor Enclosure Ventilation Fan operation.

X. EU039 - EU040 Blast Furnace

EU039 - #1 Blast Furnace (16P)

EU040 - #3 Blast Furnace (16P)

| Condition(s) | Pollutant / Parameter | Permit / SIP Limit | Compliance Demonstration Method Frequency | | Reporting Requirements |
|---------------------------------------|---|---|--|----------------------|------------------------|
| X.1, X.6, X.7, X.11, X.12, X.16, X.17 | Opacity | 20% | COMS | Ongoing | Quarterly |
| | | | Baghouse I&M | Baghouse I&M | Semi-annual |
| X.2, X.8, X.14, X.16, X.17 | Single Furnace Operation | Only one of the two furnaces may be operated at anytime given time. | Recordkeeping | Daily | Quarterly |
| X.3, X.7, X.12, X.16 | Blast Furnace Emission Control & Ventilation | The Blast Furnace Baghouse and associated ventilation equipment. | Baghouse I&M Program | Baghouse I&M Program | Semi-annual |
| X.4, X.9, X.13, X.16 | Blast Furnace Baghouse and associated ventilation equipment Minimum Airflow | 249,000 ACFM when either Blast Furnace is operating. | Method 2 | Annual | Quarterly |

| Condition(s) | Pollutant / Parameter | Permit / SIP Limit | Compliance Demonstration Method | Frequency | Reporting Requirements |
|-----------------------|------------------------|-----------------------------|---|-----------|------------------------|
| X.5, X.10, X.15, X.16 | Maximum Sulfur in Fuel | 1 lb Sulfur per MMBtu Fired | Monitoring and Recordkeeping of the Sulfur Content of Coke (& Tons of Coke) charged to the Blast Furnaces | Annual | Semi-annual |

Conditions

- X.1. ASARCO shall not cause or authorize emissions to be discharged to the atmosphere from the Blast Furnace Stack that exhibit an opacity of 20% or greater averaged over 6 consecutive minutes (Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000).
- X.2. ASARCO shall not operate both blast furnaces concurrently (Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000).
- X.3. ASARCO shall utilize the Blast Furnace Baghouse and associated ventilation equipment to supply ventilation to and control emissions from the Blast Furnaces (Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000).
- X.4. ASARCO shall maintain a minimum airflow of 249,000 acfm through the Blast Furnace Baghouse and associated ventilation equipment when either Blast Furnace is operating (Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000).
- X.5. ASARCO shall not burn liquid or solid fuels containing sulfur in excess of 1 pound per million BTU fired, unless otherwise specified by rule or in this permit (ARM 17.8.322(4)).

Compliance Demonstration

- X.6. ASARCO shall monitor compliance with the 20% opacity requirement of X.1 by using data acquired from the continuous opacity monitoring system (COMS) monitoring the emissions from the Blast Furnace Stack.
- X.7. ASARCO shall, on an ongoing basis, operate and maintain the Blast Furnace Baghouse, and all associated ventilation equipment, in accordance with the Baghouse Inspection and Maintenance Program.
- X.8. ASARCO shall monitor compliance with X.2 by performing daily recordkeeping of which Blast Furnace is operating, and the hours of operation.
- X.9. ASARCO shall monitor compliance with this requirement by performing a Method 2A, 2B, 2C, or 2D test, in accordance with the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106).
- X.10. ASARCO shall monitor compliance with the requirement of X.5 by monitoring and recording the sulfur content of coke, as well as the tons of coke charged to the Blast Furnaces on an ongoing basis.

Recordkeeping

- X.11. ASARCO shall maintain all data collected by the COMS, required by Section 6 (Lead Control Plan Requirements), such that they are able to monitor compliance with the requirement of X.6 of this permit. All COMS data shall be maintained on site by ASARCO for at least 5 years after the date of data generation. This electronic data shall be made available to Department personnel upon request and shall be submitted to the Department consistent with Sections 6 and 9 (Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000).
- X.12. ASARCO shall maintain on-site records of all inspection and maintenance activities performed in accordance with the Baghouse Inspection and Maintenance Program.
- X.13. ASARCO shall maintain all Method 2 test reports on-site. All test reports must be submitted to the Department in accordance with the Montana Source Test Protocol and Procedures Manual.
- X.14. ASARCO shall maintain a daily log of which Blast Furnace is operating, and the daily hours of operation for each Blast Furnace.
- X.15. ASARCO shall maintain on-site records of the sulfur content in coke charged to the Blast Furnaces, and the quantity of coke charged to the blast furnaces.

Reporting

- X.16. The annual compliance certification report required by Section V.B must contain a certification statement for the above applicable requirements. The semiannual reporting shall provide a summary of results for all source testing performed within the reporting period, and any corrective actions taken as a result of the inspections and maintenance required by the Baghouse Inspection and Maintenance Program.
- X.17. Quarterly reporting shall provide the COMS data as prescribed by Sections 6 and 9 (Lead Control Plan Requirements), Method 2 test results, and the operating hours of the Blast Furnaces. Consistent with the SO₂ Control Plan and Lead Control Plan, ASARCO shall submit quarterly reports within 45 days of the end of each calendar quarter. The quarterly reports shall be submitted to the Department's Permitting and Compliance office in Helena. The quarterly report format shall consist of both a comprehensive electronic-magnetic report and a written or hard copy data summary report.

Y. EU041 - EU042 Blast Furnace Tapping Platform

EU041 - Blast Furnace Tapping Platform Controlled Emissions (16P)

EU042 - Blast Furnace Tapping Platform Fugitive Emissions (10V)

| Condition(s) | Pollutant / Parameter | Permit / SIP Limit | Compliance Demonstration Method Frequency | | Reporting Requirements |
|---|--|---|--|--------------------------|------------------------|
| Y.1, Y.15, Y.16, Y.23, Y.24, Y.28 | Opacity | 20% | Method 9 | As Required by the dept. | Semi-annual |
| | | | Baghouse I&M | Baghouse I&M | Semi-annual |
| Y.2, Y.17, Y.23, Y.28 | Fugitive Particulate Matter (10V) | $E = 55.0 * P^{0.11} - 40$ | Normal Operations | Annual Certification | Annual Certification |
| Y.3, Y.18, Y.25, Y.28 | Blast Furnace Tapping Platform Maximum Quarterly Fugitive (10V) Lead Emissions | 175 lb Pb per quarter (as determined by Equation 3 of Lead Control Plan and an emission factor of 0.0053 lb of lead per ton of Furnace Lead tapped. | Monitoring & Recordkeeping | Ongoing | Semi-annual |

| Condition(s) | Pollutant / Parameter | Permit / SIP Limit | Compliance Demonstration Method Frequency | | Reporting Requirements |
|------------------------|--|--|--|----------------------|------------------------|
| Y.4, Y.19, Y.23, Y.28 | Blast Furnace Baghouse and associated ventilation equip. Minimum Airflow | 249,000 ACFM during all hours of operation of the Blast Furnace Tapping Platform. | Method 2 | Annually | Semi-annual |
| Y.5, Y.16, Y.24, Y.28 | Emission Control and Ventilation | The Blast Furnace Baghouse and associated ventilation equipment shall be used to supply ventilation and emission control to the Blast Furnace Tapping Platform. The tapping platform shall include, but is not limited to, the Forebay, Slag Pans, and Lead Pots. | Baghouse I&M Program | Baghouse I&M Program | Semi-annual |
| Y.6, Y.16, Y.24, Y.28 | Ventilation Hoods operated on the #1 and the #3 slag tapping pans. | Whenever a blast furnace is operating and a Jitney is in place. | Baghouse I&M Program | Baghouse I&M Program | Semi-annual |
| Y.7, Y.16, Y.24, Y.28 | Hoods (first settler hood and slag pan hood) operated on each Jitney. | Hoods shall be operated on each Jitney, whenever that Jitney is in use. | Baghouse I&M Program | Baghouse I&M Program | Semi-annual |
| Y.8, Y.16, Y.24, Y.28 | Lead Pot Hoods | Shall be operated on the lead pots during all tapping. | Baghouse I&M Program | Baghouse I&M Program | Semi-annual |
| Y.9, Y.16, Y.24, Y.28 | Lead Pot Transfers | Whenever lead pots are being transferred to or from the blast furnace tapping area, the tops shall be completely covered. | Baghouse I&M Program | Baghouse I&M Program | Semi-annual |
| Y.10, Y.16, Y.24, Y.28 | Slag Tapping Pan Ventilation Hood Design. | Hoods shall be large enough, and shaped appropriately, to cover slag pans. | Baghouse I&M Program | Baghouse I&M Program | Semi-annual |
| Y.11, Y.16, Y.24, Y.28 | First Settler & Lead Pot Hood Design. | Shall be designed to effectively control emissions. | Baghouse I&M Program | Baghouse I&M Program | Semi-annual |
| Y.12, Y.20, Y.25, Y.28 | Furnace Lead Produced | Furnace Lead Production \leq 132,000 tons per year | Monitoring & Recordkeeping | Ongoing | Quarterly |
| Y.13, Y.21, Y.26, Y.28 | Slag Produced | Slag Production \leq 44,000 tons per quarter (176,000 tons per year) | Monitoring & Recordkeeping | Ongoing | Quarterly |
| Y.14, Y.22, Y.27, Y.28 | Fan Operation | Devices that monitor and record the hours of fan operation shall be installed and operated on the Blast Furnace Tapping Floor Ventilation Fan. | Lead Control Plan | Quarterly | Quarterly |

Conditions

- Y.1. ASARCO shall not cause or authorize emissions to be discharged to the atmosphere from the Blast Furnace Tapping Platform that exhibit an opacity of 20% or greater averaged over 6 consecutive minutes (ARM 17.8.304(2)).

- Y.2. ASARCO shall not cause or authorize fugitive particulate matter to be discharged from the Blast Furnace Tapping Platform into the outdoor atmosphere in excess of the maximum hourly allowable emissions of particulate matter calculated using $E = 55.0 * P^{0.11} - 40$, where E is the rate of emissions in pounds per hour and P is the process weight rate in tons per hour (ARM 17.8.310).
- Y.3. ASARCO shall not cause or authorize fugitive lead emissions from the Blast Furnace Tapping Platform to exceed 175.0 lb per quarter (using an emission factor of 0.0053 lb lead per ton of Furnace Lead produced and Equation 3)(Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000).
- Y.4. ASARCO shall maintain a minimum airflow of 249,000 acfm through the Blast Furnace Baghouse and associated ventilation equipment when either Blast Furnace Tapping Platform is operating (Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000).
- Y.5. ASARCO shall utilize the Blast Furnace Baghouse and associated ventilation equipment to supply ventilation to and control emissions from the Blast Furnace Tapping Platform. The Tapping Platform shall include, but is not limited to, the Forebay, Slag Pans, and Lead Pots. (Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000).
- Y.6. ASARCO shall operate ventilation hoods on the #1 and the #3 slag tapping pans whenever their corresponding blast furnace is operating and the jittney is in place (Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000).
- Y.7. ASARCO shall operate the first settler hood and slag pan hood on each jittney, whenever that jittney is in use (Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000).
- Y.8. ASARCO shall operate the lead pot hoods (at the lead pots) during all tapping (Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000).
- Y.9. ASARCO shall completely cover the tops of the lead pots whenever the pots are being transferred to or from the Blast Furnace Tapping Area (Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000).
- Y.10. ASARCO shall ensure that the Slag Tapping Pan Ventilation hoods are the appropriate size and shaped to cover the slag pans, and effectively control emissions (Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000).
- Y.11. ASARCO shall ensure the First Settler and Lead Pot Hoods are designed to effectively control emissions (Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000).
- Y.12. ASARCO shall not produce more than 132,000 tons per year of furnace lead (ARM 17.8.710).
- Y.13. ASARCO shall not produce more than 44,000 tons per quarter (176,000 tons per year) of Slag (Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000).

- Y.14. ASARCO shall install and operate device(s) to monitor and record the hours of fan operation each quarter for the Blast Furnace Tapping Floor Ventilation Fan (Blast Furnace Tapping and Feed Floor Enclosure Ventilation Fan) (Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000).

Compliance Demonstration

- Y.15. As required by the Department, ASARCO shall perform a Method 9 test in accordance with the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106). Each observation period shall be a minimum of 6 minutes, unless any one reading is greater than the relevant opacity limit (20%); then the observation period shall be a minimum of 20 minutes or until a violation of the standard has been documented, whichever is a shorter period of time.
- Y.16. ASARCO shall, on an ongoing basis, operate and maintain the Blast Furnace Tapping Floor Ventilation Fan, the Blast Furnace Baghouse, and all associated ventilation equipment, in accordance with the Baghouse Inspection and Maintenance Program.
- Y.17. ASARCO is required to maintain normal operations to monitor compliance with Y.2. ASARCO shall certify ongoing normal operations on an annual basis and record any maintenance activities conducted for this source.
- Y.18. ASARCO shall monitor compliance with Y.3, the fugitive lead emission limit of 175.0 lb/quarter, by monitoring and recording (logging) the quantity of Furnace Lead tapped from both blast furnaces (and using the emission factor of 0.0053 lb/ton with Equation 3) on an ongoing basis.
- Y.19. Annually ASARCO shall perform a Method 2A, 2B, 2C, or 2D test in accordance with the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106).
- Y.20. ASARCO shall monitor compliance with the production limitation of Y.12 by monitoring and recording the quantity of Furnace Lead tapped from both blast furnaces on an ongoing basis, as also required by Y.18.
- Y.21. ASARCO shall monitor compliance with the production limitation of Y.13 by monitoring and recording the quantity of Slag tapped from both blast furnaces on an ongoing basis
- Y.22. ASARCO shall, on an ongoing basis, monitor and record the hours of fan operation each quarter for the Blast Furnace Tapping Floor Ventilation Fan (Blast Furnace Tapping and Feed Floor Enclosure Ventilation Fan).

Recordkeeping

- Y.23. ASARCO shall maintain all test reports (Method 2, Method 5, Method 9, etc.) on-site. All test reports must be submitted to the Department in accordance with the Montana Source Test Protocol and Procedures Manual.
- Y.24. ASARCO shall maintain on-site records of all maintenance activities including all inspection and maintenance activities performed in accordance with Baghouse Inspection and Maintenance Program.
- Y.25. ASARCO shall maintain on-site records of the quantity of furnace lead tapped from both Blast Furnace(s). ASARCO shall utilize the Furnace Lead production data to monitor compliance with Y.3 and Y.12. Records shall be submitted to the Department upon request.

- Y.26. ASARCO shall maintain on-site records of the quantity of Slag tapped from both Blast Furnace(s). ASARCO shall utilize the Slag production data to monitor compliance with Y.13. Records shall be submitted to the Department upon request.
- Y.27. ASARCO shall record and maintain on site the hours of fan operation each quarter for the Blast Furnace Tapping Floor Ventilation Fan (Blast Furnace Tapping and Feed Floor Enclosure Ventilation Fan).

Reporting

- Y.28. The annual compliance certification report required by Section V.B must contain a certification statement for the above applicable requirements. The semiannual reporting shall provide a summary of results for all source testing performed within the reporting period, fugitive lead emissions from the Blast Furnace Tapping Platform, and any corrective actions taken as a result of the inspections and maintenance required by the Baghouse Inspection and Maintenance Program. The quarterly reporting shall provide:
- The tonnage's of Furnace Lead and Slag Produced; and
 - The hours of Blast Furnace Tapping Floor Ventilation Fan (Blast Furnace Tapping and Feed Floor Enclosure Ventilation Fan) operation.

Z. EU043 - EU044 Slag Handling

EU043 - Slag Handling Area Fugitive Emissions (11V)

EU044 - Slag Pile Dumping Area Fugitive Emissions (12V)

| Condition(s) | Pollutant / Parameter | Permit / SIP Limit | Compliance Demonstration Method Frequency | | Reporting Requirements |
|---------------------------|--|--|---|--------------------------|------------------------|
| Z.1, Z.5, Z.6, Z.10, Z.13 | Opacity | 20% | Method 9 | As Required by the Dept. | Semi-annual |
| | | Reasonable Precautions | Visual Surveys | Weekly | Semi-annual |
| Z.2, Z.7, Z.12, Z.13 | Particulate Matter | $E = 4.10 \cdot P^{0.67}$ | Normal Operations | Annual Certification | Annual Certification |
| Z.3, Z.8, Z.11, Z.13 | Maximum Slag (11V) Handled per Quarter | 44,000 tons of slag per quarter (plant accounting records) | Monitoring & Recordkeeping | Ongoing | Quarterly |
| Z.4, Z.9, Z.11, Z.13 | Maximum Slag (12V) Dumped per Quarter | 44,000 tons of slag per quarter (plant accounting records) | Monitoring & Recordkeeping | Ongoing | Quarterly |

Conditions

- Z.1. ASARCO shall not cause or authorize the production, handling, transportation, or storage of material associated with Slag Handling unless reasonable precautions to control emissions of particulate matter are taken. Such emissions of airborne particulate matter from any stationary source shall not exhibit an opacity of 20% or greater averaged over 6 consecutive minutes, unless otherwise specified by rule or in this permit (ARM 17.8.308(1)).
- Z.2. ASARCO shall not cause or authorize particulate matter to be discharged from Slag Handling into the outdoor atmosphere in excess of the maximum hourly allowable emissions of particulate matter calculated using $E = 4.10 \cdot P^{0.67}$, where E is the rate of emissions in pounds per hour and P is the process weight rate in tons per hour (ARM 17.8.310).

- Z.3. ASARCO shall not handle more than 44,000 tons of slag per quarter in the Slag Handling Facility (Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000).
- Z.4. ASARCO shall not dump more than 44,000 tons of slag per quarter (Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000).

Compliance Demonstration

- Z.5. As required by the Department, ASARCO shall perform a Method 9 test in accordance with the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106). Each observation period shall be a minimum of 6 minutes, unless any one reading is greater than the opacity limit; then the observation period shall be a minimum of 20 minutes or until a violation of the standard has been documented, whichever is a shorter period of time.
- Z.6. For the purpose of certification, ASARCO shall perform weekly visual surveys of the visible emissions from the material handling operation. Conducting a visual survey does not relieve ASARCO from the liability of a violation documented with a Method 9 test. The person conducting the visual survey does not have to be an EPA Method 9 certified observer; however, the individual must be familiar with the procedures of EPA Method 9, including the proper location from which to observe visible emission. If excessive fugitive emissions are identified, ASARCO shall initiate efforts to minimize or curtail the emissions.
- Z.7. ASARCO is required to maintain normal operations to monitor compliance with Z.2.
- Z.8. ASARCO shall monitor compliance with Z.3 by monitoring and recording (logging) the quantity of slag handled in the Slag Handling Facility on an ongoing basis.
- Z.9. ASARCO shall monitor compliance with Z.4 by monitoring and recording (logging) the quantity of slag dumped on an ongoing basis.

Recordkeeping

- Z.10. All test reports must be maintained on site and must be submitted to the Department in accordance with the Montana Source Test Protocol and Procedures Manual. A log of the weekly visual survey results shall be maintained on site and submitted to the Department upon request. The log shall include the date, time, observer's initials, and any corrective actions that have been taken.
- Z.11. ASARCO shall maintain on-site records of the tons of slag handled in the Slag Handling Facility, and the tons of slag dumped. Records shall be submitted to the Department upon request.
- Z.12. ASARCO is not required to perform recordkeeping for Z.2 and Z.7.

Reporting

- Z.13. The annual compliance certification report required by Section V.B must contain a certification statement for the above applicable requirements. The semiannual reporting shall provide the results from any Method 9 tests performed as well as a summary of all weekly visual survey results. The quarterly reporting shall provide the tonnage of slag handled in the Slag Handling Facility, and the tonnage of slag dumped.

AA. EU045 - Blast Furnace Stack - 16P

| Condition(s) | Pollutant / Parameter | Permit / SIP Limit | Compliance Method | Demonstration Frequency | Reporting Requirements |
|--|---|--|-------------------|-------------------------|------------------------|
| AA.1, AA.6 AA.7, AA.12, AA.13, AA.16, AA.17 | Opacity | 20% | COMS | Ongoing | Quarterly |
| | | | Baghouse I&M | Baghouse I&M Program | Semi-annual |
| AA.2, AA.8, AA.12, AA.17 | Continuous Opacity Monitoring System (COMS) | Asarco shall install and operate a COMS on the Blast Furnace Baghouse Stack (16P). | Lead Control Plan | Lead Control Plan | Quarterly |
| AA.3, AA.9, AA.14, AA.16 | Particulate Matter | 25.150 lb/hr | Method 5 | 2 Years | Semi-annual |
| AA.4, AA.10, AA.14, AA.16 | Lead | 3.7145 lb/hr | Method 12 | Annually | Semi-annual |
| AA.5, AA.11, AA.15, AA.17 | Fan Operation | Devices to monitor and record the hours of fan operation shall be installed and operated on the Blast Furnace Baghouse Fan(s), and the Blast Furnace Stack Fan(s). | Lead Control Plan | Quarterly | Quarterly |

Conditions

- AA.1. ASARCO shall not cause or authorize emissions to be discharged to the atmosphere from the Blast Furnace Stack that exhibit an opacity of 20% or greater averaged over 6 consecutive minutes (Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000 and ARM 17.8.715).
- AA.2. ASARCO shall install and operate a Continuous Opacity Monitoring System (COMS) on the Blast Furnace Baghouse Stack (16P) (Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000).
- AA.3. ASARCO shall not cause or authorize particulate matter to be discharged from the Blast Furnace Stack into the outdoor atmosphere in excess of 25.150 lb per hour (ARM 17.8.715).
- AA.4. ASARCO shall not cause or authorize lead to be discharged from the Blast Furnace Stack into the outdoor atmosphere in excess of 3.7145 lb per hour (Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000).
- AA.5. ASARCO shall install and operate device(s) to monitor and record the hours of fan operation each quarter for the Blast Furnace Baghouse Fans and the Blast Furnace Stack Fan (Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000).

Compliance Demonstration

- AA.6. ASARCO shall monitor compliance with the 20% opacity requirement of AA.1 by using data acquired from the continuous opacity monitoring system (COMS) monitoring the emissions from the Blast Furnace Stack.

- AA.7. ASARCO shall, on an ongoing basis, operate and maintain the Blast Furnace Baghouse, and all associated ventilation equipment, in accordance with the Baghouse Inspection and Maintenance Program.
- AA.8. ASARCO shall monitor compliance with requirement AA.2 by satisfying the requirements of Sections 6 and 9(I), (Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000).
- AA.9. ASARCO shall monitor compliance with AA.3 by performing a Method 5 test every 2 years in accordance with the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106).
- AA.10. ASARCO shall monitor compliance with AA.4 by performing a Method 12 test annually in accordance with the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106).
- AA.11. ASARCO shall, on an ongoing basis, monitor and record the hours of fan operation each quarter for the Blast Furnace Baghouse Fans and the Blast Furnace Stack Fan.

Recordkeeping

- AA.12. ASARCO shall maintain all data collected by the COMS required by Section 6 (Lead Control Plan) such that they are able to monitor compliance with requirement AA.1 of this permit. All COMS data shall be maintained on site by ASARCO for at least 5 years after the date of data generation. This electronic data shall be made available to Department personnel upon request and shall be submitted to the Department consistent with Sections 6 and 9 (Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000).
- AA.13. ASARCO shall maintain on-site records of all inspection and maintenance activities performed in accordance with the Baghouse Inspection and Maintenance Program.
- AA.14. ASARCO shall maintain all test reports (Method 2, Method 5, Method 9, Method 12, etc.) on-site. All test reports must be submitted to the Department in accordance with the Montana Source Test Protocol and Procedures Manual.
- AA.15. ASARCO shall record and maintain on site the hours of fan operation each quarter for the Blast Furnace Baghouse Fans and the Blast Furnace Stack Fan.

Reporting

- AA.16. The annual compliance certification report required by Section V.B must contain a certification statement for the above applicable requirements. The semiannual reporting shall provide a summary of results for all source testing performed within the reporting period, and any corrective actions taken as a result of the inspections and maintenance required by the Baghouse Inspection and Maintenance Program.
- AA.17. Quarterly reporting shall provide the COMS data as prescribed by Sections 6 and 9 (Lead Control Plan) and the hours of operation of the Blast Furnace Baghouse Fans and the Blast Furnace Stack Fan. Consistent with the Lead Control Plan Requirements, ASARCO shall submit quarterly reports within 45 days of the end of each calendar quarter. The quarterly reports shall be submitted to the Department's Permitting and Compliance office in Helena. The quarterly report format shall consist of both a comprehensive electronic-magnetic report and a written or hard copy data summary report.

BB.EU046 - Blast Furnace Baghouse Dust Cleanout Area & Baghouse (*16P)

| Condition(s) | Pollutant / Parameter | Permit / SIP Limit | Compliance Demonstration Method Frequency | | Reporting Requirements |
|---|--|---|--|--------------------------|------------------------|
| BB.1, BB.7, BB.8, BB.12, BB.13, BB.16 | Opacity | 20% | Method 9 | As Required by the Dept. | Semi-annual |
| | | | Baghouse I&M | Baghouse I&M Program | Semi-annual |
| BB.2, BB.8, BB.13, BB.16 | Enclosure Emission Control (Blast Furnace Baghouse Dust Unloading and Reclaiming Area) | Blast Furnace Baghouse Dust Cleanout Baghouse | Baghouse I&M Program | Baghouse I&M Program | Semi-annual |
| BB.3, BB.8, BB.13, BB.16 | Blast Furnace Baghouse Dust Cleanout Baghouse Emissions (EU046) | Discharged through the Blast Furnace Baghouse Stack (16P) | Baghouse I&M Program | Baghouse I&M Program | Semi-annual |
| BB.4, BB.9, BB.12, BB.16 | Minimum Airflow for the ventilation system associated with the Baghouse Dust Unloading and Reclaiming Area Enclosure | 35,400 ACFM (EU046) | Method 2 | Annually | Semi-annual |
| BB.5, BB.10, BB.14, BB.16 | Blast Furnace Baghouse Dust Unloading and Reclaiming Area NDO | Construct and Maintain Enclosure with $NDO \leq 177 \text{ ft}^2$. | Direct Measurement | As Required by the dept. | Semi-annual |
| BB.6, BB.11, BB.15, BB.16 | Fan Operation | Monitor and record the hours of fan operation on the Blast Furnace Baghouse Dust Cleanout Baghouse Fan. | Lead Control Plan | Ongoing | Quarterly |

***The Blast Furnace Baghouse Dust Cleanout Baghouse (18V) vents to the Blast Furnace Stack Conditions**

- BB.1. ASARCO shall not cause or authorize emissions to be discharged to the atmosphere from the Blast Furnace Baghouse Dust Cleanout Baghouse that exhibit an opacity of 20% or greater averaged over 6 consecutive minutes (ARM 17.8.304(2)).
- BB.2. ASARCO shall utilize the Blast Furnace Baghouse Dust Cleanout Baghouse to provide local and general ventilation and emission control to the Blast Furnace Unloading and Reclaiming Area Enclosure (Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000).
- BB.3. ASARCO shall vent the emissions discharged from Blast Furnace Baghouse Dust Cleanout Baghouse to the Blast Furnace Baghouse Stack (Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000).
- BB.4. ASARCO shall maintain a minimum airflow of 35,400 acfm through the ventilation system, the Blast Furnace Baghouse Dust Cleanout Baghouse, associated with the Baghouse Dust Unloading and Reclaiming Area Enclosure (Blast Furnace Baghouse Cleanout Area) (Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000).

- BB.5. Asarco shall construct and maintain an enclosure around the Blast Furnace Baghouse Dust Unloading and Reclaiming Area (Blast Furnace Baghouse Cleanout Area) such that ASARCO shall not allow the Natural Draft Opening (NDO) of the Blast Furnace Baghouse Dust Unloading and Reclaiming Area (Blast Furnace Baghouse Cleanout Area) to exceed 177 ft² (Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000).
- BB.6. ASARCO shall, on an ongoing basis, monitor and record the hours of fan operation each quarter for the Blast Furnace Baghouse Dust Cleanout Baghouse (Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000).

Compliance Demonstration

- BB.7. As required by the Department, ASARCO shall perform a Method 9 test in accordance with the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106). Each observation period shall be a minimum of 6 minutes, unless any one reading is greater than the relevant opacity limit (20%); then the observation period shall be a minimum of 20 minutes or until a violation of the standard has been documented, whichever is a shorter period of time.
- BB.8. ASARCO shall, on an ongoing basis, operate and maintain the Blast Furnace Baghouse Dust Cleanout Baghouse in accordance with the Baghouse Inspection and Maintenance Program.
- BB.9. ASARCO shall perform a Method 2 test annually in accordance with the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106). Alternatively, ASARCO may monitor compliance with this requirement by performing a Method 2A, 2B, 2C, or 2D test.
- BB.10. As required by the Department, ASARCO shall determine the Natural Draft Opening (NDO) of the Blast Furnace Baghouse Dust Unloading and Reclaiming Area (Blast Furnace Baghouse Cleanout Area). ASARCO shall certify annually that the NDO of the Blast Furnace Baghouse Dust Unloading and Reclaiming Area (Blast Furnace Baghouse Cleanout Area) is less than or equal to 177 ft².
- BB.11. ASARCO shall, on an ongoing basis, monitor and record the hours of fan operation each quarter for the Blast Furnace Baghouse Dust Cleanout Baghouse.

Recordkeeping

- BB.12. ASARCO shall maintain all Method 2 and Method 9 test reports on-site. All test reports must be submitted to the Department in accordance with the Montana Source Test Protocol and Procedures Manual.
- BB.13. ASARCO shall maintain on-site records of all inspection and maintenance activities performed in accordance with the Baghouse Inspection and Maintenance Program.
- BB.14. NDO determinations shall be maintained on-site, and shall be made available to the Department upon request.
- BB.15. ASARCO shall record and maintain on site the hours of fan operation each quarter for the Blast Furnace Baghouse Dust Cleanout Baghouse Fan.

Reporting

BB.16. The annual compliance certification report required by Section V.B must contain a certification statement for the above applicable requirements. The semiannual reporting shall provide a summary of results for all source testing performed within the reporting period, and any corrective actions taken as a result of the inspections and maintenance required by the Baghouse Inspection and Maintenance Program. The quarterly reporting shall provide the hours of Blast Furnace Baghouse Dust Cleanout Baghouse Fan operation.

CC. EU047 - Blast Furnace Flue Cleanout (19V)

| Condition(s) | Pollutant / Parameter | Permit / SIP Limit | Compliance Method | Demonstration Frequency | Reporting Requirements |
|---------------------------------|---|---|--|----------------------------|------------------------|
| CC.1, CC.9, CC.10, CC.15, CC.19 | Opacity | 20% | Method 9 | As Required by the Dept. | Semi-annual |
| | | Reasonable Precautions | Visual Surveys | Weekly | Semi-annual |
| CC.2, CC.11, CC.19 | Particulate Matter | $E = 4.10 \times P^{0.67}$ | Normal Operations | Annual Certification | Annual Certification |
| CC.3, CC.12, CC.16, CC.19 | Maximum Quarterly Lead Emissions from cleaning out the Blast Furnace Flue | 80.3 lb Pb per quarter (as determined by equation 1). | Payloader Load Cell Measurement System | Quarterly | Quarterly |
| CC.4, CC.12, CC.16, CC.19 | Maximum Quarterly Lead Emission from cleaning out the Blast Furnace Flue during the Afternoon Shift | 3.5 lb Pb per quarter (Equation 1, Lead Control Plan); Unutilized Night Shift emission allocations may be transferred to the Afternoon Shift. | Payloader Load Cell Measurement System | Quarterly | Quarterly |
| CC.5, CC.12, CC.16, CC.19 | Maximum Quarterly Lead Emissions from cleaning out the Blast Furnace Flue during the Night Shift | 3.1 lb Pb per quarter (Equation 1, Lead Control Plan); Unutilized Night Shift emission allocations may be transferred to the Afternoon Shift. | Payloader Load Cell Measurement System | Quarterly | Quarterly |
| CC.6, CC.13, CC.17, CC.19 | Payloader Drop Height | Less than or equal to 3 ft | Visual Surveys & Lead Control Plan | Weekly & Lead Control Plan | Semi-annual |
| CC.7, CC.12, CC.16, CC.19 | Payloader bucket size | The payloaders used in the cleaning out of the Blast Furnace Flue shall have bucket sizes sufficient to ensure that the average bucket size is 1.0 cubic yard or greater. | Payloader Load Cell Measurement System | Ongoing | Semi-annual |
| CC.8, CC.14, CC.18, CC.19 | Hourly Average Wind Speed for the Hour prior to Flue Cleaning | Less than or equal to 12.0 mph (Flue cleaning prohibited if greater than 12 mph) | Meteorological Monitoring Site | Hourly | Semi-annual |

Conditions

- CC.1. ASARCO shall not cause or authorize the production, handling, transportation, or storage of material associated with cleaning out the Blast Furnace Flue unless reasonable precautions to control emissions of particulate matter are taken. Such emissions of airborne particulate matter from any stationary source shall not exhibit an opacity of 20% or greater averaged over 6 consecutive minutes, unless otherwise specified by rule or in this permit (ARM 17.8.308(1)).
- CC.2. ASARCO shall not cause or authorize emissions of particulate matter from Blast Furnace Flue Cleanout activities to be discharged to atmosphere that exceed the value calculated by $E = 4.10 \times P^{0.67}$, where E is the rate of emissions in pounds per hour and P is the process weight rate in tons per hour (ARM 17.8.310).

- CC.3. ASARCO shall not exceed 80.3 pounds per quarter of lead emissions from Blast Furnace Flue Cleanout activities as determined by Equation 1 (Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000).
- CC.4. ASARCO shall not exceed 3.5 pounds per quarter of lead emissions from Blast Furnace Flue Cleanout activities during the afternoon shift as determined by Equation 1. Unutilized night shift emission allocations may be transferred to the afternoon shift (Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000).
- CC.5. ASARCO shall not exceed 3.1 pounds per quarter of lead emissions from Blast Furnace Flue Cleanout activities during the night shift as determined by Equation 1. Unutilized night shift emission allocations may be transferred to the afternoon shift (Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000).
- CC.6. ASARCO shall not exceed an average payload drop height of 3 feet when performing Blast Furnace Flue Cleanout activities as determined by visual observation (Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000).
- CC.7. ASARCO shall utilize payloaders with an average bucket size equal to or greater than 1.0 cubic yard when performing Blast Furnace Flue Cleanout activities (Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000).
- CC.8. ASARCO shall not perform Blast Furnace Flue Cleanout activities when the hourly-average wind speed at the ASARCO meteorological monitoring site is greater than 12.0 mph for the hour prior to Blast Furnace Flue Cleanout activities (Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000).

Compliance Demonstration

- CC.9. As required by the Department, ASARCO shall perform a Method 9 test in accordance with the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106). Each observation period shall be a minimum of 6 minutes, unless any one reading is greater than the opacity limit; then the observation period shall be a minimum of 20 minutes or until a violation of the standard has been documented, whichever is a shorter period of time.
- CC.10. For the purpose of certification, ASARCO shall perform weekly visual surveys of the visible emissions from the material handling operation. Conducting a visual survey does not relieve ASARCO from the liability of a violation documented with a Method 9 test. The person conducting the visual survey does not have to be an EPA Method 9 certified observer; however, the individual must be familiar with the procedures of EPA Method 9, including the proper location from which to observe visible emission. If excessive fugitive emissions are identified, ASARCO shall initiate efforts to minimize or curtail the emissions.
- CC.11. ASARCO is required to maintain normal operations to monitor compliance with CC.2.
- CC.12. ASARCO shall utilize data from the payload Load Cell System, and Equation 1, to determine lead emissions and monitor compliance with CC.3, CC.4, CC.5, & CC.7.
- CC.13. ASARCO shall monitor compliance with CC.6 by performing weekly visual surveys of the average payload drop height. If an average payload drop height greater than 3 feet is determined as a result of the weekly survey, ASARCO shall initiate corrective actions.
- CC.14. ASARCO shall utilize data from the payload Load Cell System and the on-site meteorological station to monitor compliance with CC.8.

Recordkeeping

- CC.15. All test reports must be maintained on site and must be submitted to the Department in accordance with the Montana Source Test Protocol and Procedures Manual. A log of the weekly visual survey results shall be maintained on site and submitted to the Department upon request. The log shall include the date, time, observer's initials, and any corrective actions that have been taken.
- CC.16. ASARCO shall collect and record the date, time, tonnage, material location, and material identifier from the payloaders Load Cell Systems.
- CC.17. ASARCO shall record the average payload drop height observed during the weekly visual surveys of the Blast Furnace Flue Cleanout activities; the payload drop height visual survey results may be recorded in the log maintained for visible emissions.
- CC.18. ASARCO shall collect and record all data from their on-site meteorological station.

Reporting

- CC.19. The annual compliance certification report required by Section V.B must contain a certification statement for the above applicable requirements. The semiannual reporting shall provide the results from any Method 9 tests performed, the total tons of material (flue dust) handled by payloaders during the quarter, the lead, silt, and moisture content of the Dust, the hourly average wind speed in the hour prior to handling Blast Furnace Flue dust as well as a summary of all weekly visual survey results. The quarterly reporting shall provide:
- a. The total lead emissions from Blast Furnace Flue Cleanout activities performed during the quarter;
 - b. The tons of dust material cleaned out from the Blast Furnace Flue during afternoon shifts, and the lead emissions from Blast Furnace Flue Cleanout activities during the afternoon shift; and
 - c. The tons of dust material cleaned out from the Blast Furnace Flue during night shifts, and the lead emissions from Blast Furnace Flue Cleanout activities during the night shift.

DD.EU048 – Hopto Unloading and Blast Furnace Baghouse Dust Reclaiming (2V)

| Condition(s) | Pollutant / Parameter | Permit / SIP Limit | Compliance Method | Demonstration Frequency | Reporting Requirements |
|----------------------------------|---|--|--------------------------------------|----------------------------|------------------------|
| DD.1, DD.10, DD.11, DD.17, DD.22 | Opacity | 20% | Method 9 | As Required by the dept. | Semi-annual |
| | | Reasonable Precautions | Visual Surveys | Weekly | Semi-annual |
| DD.2, DD.12, DD.22 | Particulate Matter | $E = 4.10 \cdot P^{0.67}$ | Normal Operations | Annual Certification | Annual Certification |
| DD.3, DD.13, DD.18, DD.22 | Maximum Quarterly Lead emissions from Blast Furnace Baghouse Dust Reclaiming | 67.7 lb Pb per quarter (Using Equation 1 of the Lead Control Plan) | Payload Load Cell Measurement System | Quarterly | Semi-annual |
| DD.4, DD.13, DD.18, DD.22 | Maximum Quarterly Lead emissions from reclaiming Blast Furnace Baghouse Dust during the Afternoon Shift | 3.0 lb Pb per quarter (Using Equation 1 of the Lead Control Plan); unutilized Night Shift emission allocations may be transferred to the Afternoon shift. | Payload Load Cell Measurement System | Quarterly | Semi-annual |
| DD.5, DD.13, DD.18, DD.22 | Maximum Quarterly Lead emissions from reclaiming Blast Furnace Baghouse Dust during the Night Shift | 2.6 lb Pb per quarter (Using Equation 1 of the Lead Control Plan); unutilized Night Shift emission allocations may be transferred to the Afternoon shift. | Payload Load Cell Measurement System | Quarterly | Semi-annual |
| DD.6, DD.14, DD.19, DD.22 | Maximum Quarterly Non-dust material unloaded by the Hopto | 3000 tons | Plant Accounting Records | Daily | Quarterly |
| DD.7, DD.15, DD.20, DD.22 | Average Payload Drop Height | Less than or equal to 5 feet | Visual Surveys & Lead Control Plan | Weekly & Lead Control Plan | Semi-annual |
| DD.8, DD.13, DD.18, DD.22 | Average Payload Bucket capacity | Payloads used in reclaiming Blast Furnace Baghouse Dust shall have bucket sizes sufficient to ensure that the average bucket size is 3.5 cubic yards or greater. | Payload Load Cell Measurement System | Ongoing | Semi-annual |
| DD.9, DD.16, DD.21, DD.22 | Hourly Average Wind Speed for the Hour prior to BF Baghouse Dust Reclaiming | Less than or equal to 12.0 mph | Meteorological Monitoring Site | Hourly | Semi-annual |

Conditions

DD.1. ASARCO shall not cause or authorize the production, handling, transportation, or storage of material associated with Hopto Unloading and Blast Furnace Baghouse Dust Reclaiming unless reasonable precautions to control emissions of particulate matter are taken. Such emissions of

airborne particulate matter from any stationary source shall not exhibit an opacity of 20% or greater averaged over 6 consecutive minutes, unless otherwise specified by rule or in this permit (ARM 17.8.308(1)).

- DD.2. ASARCO shall not cause or authorize emissions of particulate matter from Hopto Unloading and Blast Furnace Baghouse Dust Reclaiming to be discharged to atmosphere that exceed the value calculated by $E = 4.10 \cdot P^{0.67}$, where E is the rate of emissions in pounds per hour and P is the process weight rate in tons per hour (ARM 17.8.310).
- DD.3. ASARCO shall not exceed 67.7 pounds per quarter of lead emissions from Blast Furnace Baghouse Dust Reclaiming activities as determined by Equation 1 (Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000).
- DD.4. ASARCO shall not exceed 3.0 pounds per quarter of lead emissions from Blast Furnace Baghouse Dust Reclaiming during the afternoon shift as determined by Equation 1. Unutilized night shift emission allocations may be transferred to the afternoon shift (Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000).
- DD.5. ASARCO shall not exceed 2.6 pounds per quarter of lead emissions from Blast Furnace Baghouse Dust Reclaiming during the night shift as determined by Equation 1. Unutilized night shift emission allocations may be transferred to the afternoon shift (Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000).
- DD.6. ASARCO shall not unload more than 3000 tons of non-dust material per quarter by the Hopto type loader as determined by plant accounting records. Dust shall no longer be unloaded by the Hopto type loader (Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000).
- DD.7. ASARCO shall not exceed an average payloader drop height of 5 feet when performing Blast Furnace Baghouse Dust Reclaiming as determined by visual observation (Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000).
- DD.8. ASARCO shall utilize payloaders with an average bucket size equal to or greater than 3.5 cubic yard when performing Blast Furnace Baghouse Dust Reclaiming (Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000).
- DD.9. ASARCO shall not perform Blast Furnace Baghouse Dust Reclaiming when the hourly-average wind speed at the ASARCO meteorological monitoring site is greater than 12.0 mph for the hour prior to the Blast Furnace Baghouse Dust Reclaiming (Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000).

Compliance Demonstration

- DD.10. As required by the Department, ASARCO shall perform a Method 9 test in accordance with the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106). Each observation period shall be a minimum of 6 minutes, unless any one reading is greater than the opacity limit; then the observation period shall be a minimum of 20 minutes or until a violation of the standard has been documented, whichever is a shorter period of time.
- DD.11. For the purpose of certification, ASARCO shall perform weekly visual surveys of the visible emissions from the material handling operation. Conducting a visual survey does not relieve ASARCO from the liability of a violation documented with a Method 9 test. The person conducting the visual survey does not have to be an EPA Method 9 certified observer; however, the individual must be familiar with the procedures of EPA Method 9, including the proper location from which to observe visible emissions. If excessive fugitive emissions are identified, ASARCO shall initiate efforts to minimize or curtail the emissions.

- DD.12. ASARCO is required to maintain normal operations to monitor compliance with DD.2.
- DD.13. ASARCO shall utilize data from the payloader Load Cell System, and Equation 1, to determine lead emissions and monitor compliance with DD.3, DD.4, DD.5, & DD.8.
- DD.14. ASARCO shall maintain daily records of all quantities of non-dust material unloaded by the Hopto in accordance with the Lead Control Plan.
- DD.15. ASARCO shall monitor compliance with DD.7 by performing weekly visual surveys of the average payloader drop height. If an average payloader drop height greater than 5 feet is determined as a result of the weekly survey, ASARCO shall initiate corrective actions.
- DD.16. ASARCO shall utilize data from the payloader Load Cell System and the on-site meteorological station to monitor compliance with DD.9.

Recordkeeping

- DD.17. All test reports must be maintained on site and must be submitted to the Department in accordance with the Montana Source Test Protocol and Procedures Manual. A log of the weekly visual survey results shall be maintained on site and submitted to the Department upon request. The log shall include the date, time, observer's initials, and any corrective actions that have been taken.
- DD.18. ASARCO shall collect and record the date, time, tonnage, material location, and material identifier from the payloader Load Cell Systems.
- DD.19. ASARCO shall maintain on site all records of the quantities of non-dust material unloaded by the Hopto in accordance with the Lead Control Plan. Records shall be maintained on site and shall be submitted to the Department upon request.
- DD.20. ASARCO shall record the average payloader drop height observed during the weekly visual surveys of the Blast Furnace Flue Cleanout activities; the payloader drop height visual survey results may be recorded in the log maintained for visible emissions.
- DD.21. ASARCO shall collect and record all data from their on-site meteorological station.

Reporting

- DD.22. The annual compliance certification report required by Section V.B must contain a certification statement for the above applicable requirements. The semiannual reporting shall provide the results from any Method 9 tests performed, the lead, silt, and moisture content of the Dust, the hourly average wind speed in the hour prior to charging dust as well as a summary of all weekly visual survey results. The quarterly reporting shall provide:
- a. The total tons of Reclaimed Dust handled by payloader during the quarter;
 - b. The total tons of Non-dust material unloaded by the Hopto during the quarter;
 - c. The total lead emissions from Blast Furnace Baghouse Dust Reclaiming;
 - d. The tons of Blast Furnace Baghouse Dust reclaimed during the afternoon shift, and the lead emissions from Blast Furnace Baghouse Dust Reclaiming during the afternoon shift; and
 - e. The tons of Blast Furnace Baghouse Dust reclaimed during the night shift, and the lead emissions from Blast Furnace Baghouse Dust Reclaiming during the night shift.

EE. EU049 - Breaking Floor Building (8Va)

| Condition(s) | Pollutant / Parameter | Permit / SIP Limit | Compliance Demonstration Method | Frequency | Reporting Requirements |
|--------------------------|--|---|---------------------------------|--------------------------|------------------------|
| EE.1, EE.5, EE.9, EE.12 | Opacity | 20% | Method 9 | As Required by the Dept. | Semi-annual |
| EE.2, EE.6, EE.12 | Particulate Matter | $E = 4.10 * P^{0.67}$ | Normal Operations | Annual Certification | Annual Certification |
| EE.3, EE.7, EE.10, EE.12 | Maximum Quarterly Fugitive Lead Emissions from the Breaking Floor Building | 45.3 lbs. Pb per quarter (calculated using an emission factor of 0.0205 lb/hr). | Monitoring & Recordkeeping | Ongoing | Semi-annual |
| EE.4, EE.8, EE.11, EE.12 | Maximum NDO of the Breaking Floor Building | Less than or equal to 417 ft ² . | Direct Measurement | As Required by the Dept. | Semi-annual |

Conditions

- EE.1. ASARCO shall not cause or authorize the production, handling, transportation, or storage of material associated with the Breaking Floor Building unless reasonable precautions to control emissions of particulate matter are taken. Such emissions of airborne particulate matter from any stationary source shall not exhibit an opacity of 20% or greater averaged over 6 consecutive minutes, unless otherwise specified by rule or in this permit (ARM 17.8.308(1)).
- EE.2. ASARCO shall not cause or authorize emissions of particulate matter from the Breaking Floor Building to be discharged to atmosphere that exceed the value calculated by $E = 4.10 * P^{0.67}$, where E is the rate of emissions in pounds per hour and P is the process weight rate in tons per hour (ARM 17.8.310).
- EE.3. ASARCO shall not cause or authorize fugitive lead emissions from the Breaking Floor Building to exceed 45.3 lb per quarter (using an emission factor of 0.0205 lb/hr and Equation 3)(Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000).
- EE.4. ASARCO shall not allow the Natural Draft Opening (NDO) of the Breaking Floor Building to exceed 417 ft² for each enclosure (Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000).

Compliance Demonstration

- EE.5. As required by the Department, ASARCO shall perform a Method 9 test in accordance with the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106). Each observation period shall be a minimum of 6 minutes, unless any one reading is greater than the opacity limit; then the observation period shall be a minimum of 20 minutes or until a violation of the standard has been documented, whichever is a shorter period of time.
- EE.6. ASARCO is required to maintain normal operations to monitor compliance with EE.2.
- EE.7. ASARCO shall monitor compliance with the lead emission limit, 45.3 lb/quarter, by monitoring and recording (logging) the hours of operation (processes and activities within) of the Breaking Floor Building (and using the emission factor of 0.0205 lb/hr with Equation 3) on an ongoing basis. ASARCO cannot exceed this emission limit, using the supplied emission factor, and operating 100% of the hours during a quarter.

- EE.8. As required by the Department, ASARCO shall determine the Natural Draft Opening (NDO) of the Breaking Floor Building. ASARCO shall certify annually that the NDO of the Breaking Floor Building is less than or equal to 417 ft².

Recordkeeping

- EE.9. ASARCO shall maintain all test reports on-site. All test reports must be submitted to the Department in accordance with the Montana Source Test Protocol and Procedures Manual.
- EE.10. ASARCO shall maintain on-site records of the hours of operation (for processes and activities within) of the Breaking Floor Building. Records shall be submitted to the Department upon request.
- EE.11. NDO determinations shall be maintained on-site, and shall be made available to the Department upon request.

Reporting

- EE.12. The annual compliance certification report required by Section V.B must contain a certification statement for the above applicable requirements. The semiannual reporting shall provide a summary of results for all source testing performed within the reporting period and the fugitive lead emissions from the Breaking Floor Building.

FF. EU050 - Reagent Bin Material Handling (30V)

| Condition(s) | Pollutant / Parameter | Permit / SIP Limit | Compliance Demonstration Method | Frequency | Reporting Requirements |
|------------------------------|-----------------------|--------------------------|---------------------------------|--------------------------|------------------------|
| FF.1, FF.3, FF.4, FF.6, FF.7 | Opacity | 20% | Method 9 | As Required by the Dept. | Semi-annual |
| | | Reasonable Precautions | Visual Surveys | Weekly | Semi-annual |
| FF.2, FF.5, FF.7 | Particulate Matter | $E = 55 * P^{0.11} - 40$ | Normal Operations | Annual Certification | Annual Certification |

Conditions

- FF.1. ASARCO shall not cause or authorize the production, handling, transportation, or storage of material associated with Reagent Bin Material Handling unless reasonable precautions to control emissions of particulate matter are taken. Such emissions of airborne particulate matter from any stationary source shall not exhibit an opacity of 20% or greater averaged over 6 consecutive minutes, unless otherwise specified by rule or in this permit (ARM 17.8.308(1)).
- FF.2. ASARCO shall not cause or authorize particulate matter to be discharged from any operation, process, or activity into the outdoor atmosphere in excess of the maximum hourly allowable emissions of particulate matter calculated using $E = 55.0 * P^{0.11} - 40$, where E is the rate of emissions in pounds per hour and P is the process weight rate in tons per hour (ARM 17.8.310).

Compliance Demonstration

- FF.3. As required by the Department, ASARCO shall perform a Method 9 test in accordance with the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106). Each observation period shall be a minimum of 6 minutes, unless any one reading is greater than the opacity limit; then the observation period shall be a minimum of 20 minutes or until a violation of the standard has been documented, whichever is a shorter period of time.

FF.4. For the purpose of certification, ASARCO shall perform weekly visual surveys of the visible emissions from the material handling operation. Conducting a visual survey does not relieve ASARCO from the liability of a violation documented with a Method 9 test. The person conducting the visual survey does not have to be an EPA Method 9 certified observer; however, the individual must be familiar with the procedures of EPA Method 9, including the proper location from which to observe visible emissions. If excessive fugitive emissions are identified, ASARCO shall initiate efforts to minimize or curtail the emissions.

FF.5. ASARCO is required to maintain normal operations to monitor compliance with FF.2.

Recordkeeping

FF.6. All test reports must be maintained on site and must be submitted to the Department in accordance with the Montana Source Test Protocol and Procedures Manual. A log of the weekly visual survey results shall be maintained on site and submitted to the Department upon request. The log shall include the date, time, observer's initials, and any corrective actions that have been taken.

Reporting

FF.7. The annual compliance certification report required by Section V.B must contain a certification statement for the above applicable requirements. The semiannual reporting shall provide the results from any Method 9 tests performed as well as a summary of all weekly visual survey results.

GG. EU051-EU052 – Tetrahedrite Drier

EU051 - Tetrahedrite Baghouse (10P)

EU052 - Tetrahedrite Building (16V)

| Condition(s) | Pollutant / Parameter | Permit / SIP Limit | Compliance Demonstration Method | Frequency | Reporting Requirements |
|---|---|----------------------------|---|--------------------------|------------------------|
| GG.1, GG.12, GG.13, GG.22, GG.23, GG.27 | Opacity (10P) | 20% | Method 9 | As Required by the Dept. | Semi-annual |
| | | | Baghouse I&M | Baghouse I&M Program | Semi-annual |
| GG.2, GG.14, GG.22, GG.27 | Opacity (16V) | Reasonable Precautions | Visual Surveys | Weekly | Semi-annual |
| GG.3, GG.15, GG.22, GG.27 | Particulate Matter | $E = 4.10 \times P^{0.67}$ | Method 5 | As Required by the Dept. | Semi-annual |
| GG.4, GG.16, GG.22, GG.24, GG.25, GG.27 | Maximum Quarterly Lead emissions from the Tetrahedrite Drier Baghouse Stack | 4.9 lb Pb per quarter | If operated more than 30 days during the quarter, then most recent Method 12 results and Equation 2 | Ongoing | Quarterly |
| GG.5, GG.17, GG.24, GG.25, GG.27 | Maximum Quarterly Lead emissions from the Tetrahedrite Drier Baghouse Stack | 4.9 lb Pb per quarter | If operated less than or equal to 30 days during the quarter, then emission factor of 0.0018 lb per ton and Eq. 3 | Ongoing | Quarterly |
| GG.6, GG.18, GG.24, GG.27 | Maximum Tetrahedrite Dried per Quarter | 2700 tons per quarter. | Monitoring & Recordkeeping; ASARCO shall count the number of tote bins loaded and multiply by 7 tons. | Ongoing | Quarterly |

| Condition(s) | Pollutant / Parameter | Permit / SIP Limit | Compliance Demonstration | | Reporting Requirements |
|------------------------------|---|--------------------|---------------------------------|-----------------------------|---------------------------|
| | | | Method | Frequency | |
| GG.7, GG.19, GG.24, GG.27 | Maximum Tetrahedrite Drier Tote Bin Capacity | 7.5 tons each | Monitoring and Recordkeeping | As Required by the Dept. | Annual Certification |
| GG.8, GG.20, GG.22, GG.27 | Tetrahedrite Drier Baghouse Minimum Airflow | 19,000 acfm | Method 2 | Annual | Semi-annual |

| Condition(s) | Pollutant / Parameter | Permit / SIP Limit | Compliance Demonstration Method Frequency | | Reporting Requirements |
|----------------------------|---|--|--|----------------------|------------------------|
| GG.9, GG.13, GG.23, GG.27 | Tetrahedrite Drier Emission Control and Ventilation | The Tetrahedrite Drier Baghouse and associated ventilation | Baghouse I&M Program | Baghouse I&M Program | Semi-annual |
| GG.10, GG.13, GG.23, GG.27 | Baghouse Dust Recovery | Vacuum Truck or similar means that will minimize emissions. | Baghouse I&M Program | Baghouse I&M Program | Semi-annual |
| GG.11, GG.21, GG.26, GG.27 | Hours of Baghouse Fan Operation | ASARCO shall utilize a device to monitor and record the hours of Tetrahedrite Drier Baghouse fan operation | Lead Control Plan | Lead Control Plan | Quarterly |

Conditions

- GG.1. ASARCO shall not cause or authorize emissions to be discharged to the atmosphere from the Tetrahedrite Drier Baghouse Stack that exhibit an opacity of 20% or greater averaged over 6 consecutive minutes (Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000).
- GG.2. ASARCO shall not cause or authorize the production, handling, transportation, or storage of material associated with charging the Tetrahedrite Drier unless reasonable precautions to control emissions of particulate matter are taken. Such emissions of airborne particulate matter from any stationary source shall not exhibit an opacity of 20% or greater averaged over 6 consecutive minutes, unless otherwise specified by rule or in this permit (ARM 17.8.308(1)).
- GG.3. ASARCO shall not cause or authorize emissions of particulate matter from charging (16V) and drying (10P) the Tetrahedrite to be discharged to atmosphere that exceed the value calculated by $E = 4.10 * P^{0.67}$, where E is the rate of emissions in pounds per hour and P is the process weight rate in tons per hour (ARM 17.8.310).
- GG.4. ASARCO shall not cause or authorize lead emissions from the Tetrahedrite Drier Baghouse Stack to exceed 4.9 lb per quarter (for greater than 30 days of operation per quarter, determined by using the most recent testing results (Method 12) and Equation 2) (Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000).
- GG.5. ASARCO shall not cause or authorize lead emissions from the Tetrahedrite Drier Baghouse Stack to exceed 4.9 lb per quarter (for less than or equal to 30 days of operation per quarter, determined using an emission factor of 0.0018 lb/hr and Equation 3)(Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000).
- GG.6. ASARCO shall not dry more than 2700 tons of Tetrahedrite per quarter in the Tetrahedrite Drier (Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000).
- GG.7. ASARCO shall assure that all Tetrahedrite Drier tote bins have a maximum capacity of 7.5 tons each (Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000).
- GG.8. ASARCO shall maintain a minimum airflow of 19,000 acfm through the Tetrahedrite Drier Baghouse and associated ventilation equipment (Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000).

- GG.9. ASARCO shall utilize the Tetrahedrite Drier Baghouse and associated ventilation equipment to supply ventilation to and control emissions from the Tetrahedrite Drier (Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000).
- GG.10. ASARCO shall utilize a Vacuum Truck, or similar means that will minimize emissions, to recover dust captured by the Tetrahedrite Drier Baghouse (Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000).
- GG.11. ASARCO shall install and operate device(s) to monitor and record the hours of fan operation each quarter for the Tetrahedrite Drier Baghouse Fan (Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000).

Compliance Demonstration

- GG.12. As required by the Department, ASARCO shall perform a Method 9 test in accordance with the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106). Each observation period shall be a minimum of 6 minutes, unless any one reading is greater than the relevant opacity limit (20% or 40%); then the observation period shall be a minimum of 20 minutes or until a violation of the standard has been documented, whichever is a shorter period of time.
- GG.13. ASARCO shall, on an ongoing basis, operate and maintain the Tetrahedrite Drier Baghouse in accordance with Baghouse Inspection and Maintenance Program.
- GG.14. For the purpose of certification, ASARCO shall perform weekly visual surveys of the visible emissions from the material handling operation. Conducting a visual survey does not relieve ASARCO from the liability of a violation documented with a Method 9 test. The person conducting the visual survey does not have to be an EPA Method 9 certified observer; however, the individual must be familiar with the procedures of EPA Method 9, including the proper location from which to observe visible emissions. If excessive fugitive emissions are identified, ASARCO shall initiate efforts to minimize or curtail the emissions.
- GG.15. As required by the Department, ASARCO shall perform a Method 5 test in accordance with the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106).
- GG.16. ASARCO shall determine compliance with the lead emission limit of GG.4, when the Tetrahedrite Drier has operated more than 30 days during the quarter, by using the most recent Method 12 test results and Equation 2 (Lead Control Plan). ASARCO shall perform a Method 12 test if the most recent test is more than 5 years old. Testing shall be performed in accordance with the Montana Source Test Protocol and Procedures Manual, and shall occur no less frequently than once every 5 years (ARM 17.8.106).
- GG.17. ASARCO shall determine compliance with the lead emission limit of GG.5, when the Tetrahedrite Drier has operated less than or equal to 30 days during the quarter, by monitoring and recording the tonnage of Tetrahedrite dried per quarter (7 tons/tote), and using an emission factor of 0.0018 lb/hr and Equation 3 on an ongoing basis.
- GG.18. ASARCO shall, on an ongoing basis, monitor and record the tonnage of Tetrahedrite dried per quarter by the Tetrahedrite Drier. (ASARCO shall equate 7 tons of Tetrahedrite per tote bin loaded to the drier.)
- GG.19. ASARCO shall certify annually that all tote bins utilized for loading Tetrahedrite to the Drier have a maximum capacity of 7.5 tons each.

GG.20. ASARCO shall perform a Method 2 test annually in accordance with the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106). Alternatively, ASARCO may monitor compliance with this requirement by performing a Method 2(a), 2(b), 2(c), or 2(d) test.

GG.21. ASARCO shall, on an ongoing basis, monitor and record the hours of fan operation each quarter for the Tetrahedrite Drier Baghouse.

Recordkeeping

GG.22. All test reports must be maintained on site and must be submitted to the Department in accordance with the Montana Source Test Protocol and Procedures Manual. A log of the weekly visual survey results shall be maintained on site and submitted to the Department upon request. The log shall include the date, time, observer's initials, and any corrective actions that have been taken.

GG.23. ASARCO shall maintain on-site records of all inspection and maintenance activities performed in accordance with the Baghouse Inspection and Maintenance Program.

GG.24. ASARCO shall maintain on-site records of the quantity/tonnage of Tetrahedrite charged (# of tote bins loaded) to the Tetrahedrite Drier. ASARCO shall certify annually that the tote bins used to load the drier have a maximum capacity of 7.5 tons. Records shall be submitted to the Department upon request.

GG.25. ASARCO shall monitor and record the number of operating hours per quarter, and the number of days of operation per quarter, for the Tetrahedrite Drier.

GG.26. ASARCO shall record and maintain on site the hours of fan operation each quarter for the Tetrahedrite Drier Baghouse Fan.

Reporting

GG.27. The annual compliance certification report required by Section V.B must contain a certification statement for the above applicable requirements. The semiannual reporting shall provide the results from any tests performed, all weekly visual survey results, and any corrective actions taken as a result of the inspections and maintenance required by the Baghouse Inspection and Maintenance Program. The quarterly reporting shall provide:

- a. The tons of Tetrahedrite dried;
- b. The quarterly lead emissions from the Tetrahedrite Drier Baghouse Stack;
- c. The number of drier hours of operation per quarter;
- d. The number of days the drier operated during the quarter; and
- e. The number of hours of baghouse fan operation.

HH. EU053 - EU058 Dross Plant Combustion Emissions (*21P)

EU053 – Kettle # 1 Combustion Emissions
 EU054 – Kettle # 2 Combustion Emissions
 EU055 – Kettle # 3 Combustion Emissions

EU056 - Kettle #4 Combustion Emissions
 EU058 - Reverberatory Furnace Combustion Emissions

| Condition(s) | Pollutant / Parameter | Permit / SIP Limit | Compliance Method | Demonstration Frequency | Reporting Requirements |
|-------------------------------------|--|---|------------------------|-------------------------|------------------------|
| HH.1, HH.6, HH.7, HH.8, HH.9, HH.10 | Opacity | 20% | Natural Gas Combustion | Ongoing | Annual Certification |
| | | | Baghouse I&M | Baghouse I&M Program | Semi-annual |
| HH.2, HH.6, HH.8, HH.10 | Particulate Matter | $E = 1.026 * H^{-0.233}$ | Natural Gas Combustion | Ongoing | Annual Certification |
| HH.3, HH.6, HH.8, HH.10 | Sulfur in Fuel | 50 gr/100 CF | Natural Gas Combustion | Ongoing | Annual Certification |
| HH.4, HH.7, HH.9, HH.10 | Control of Combustion Emissions (SIP) | The Dross Plant Baghouse and associated ventilation equipment shall be used to provide ventilation and control combustion emissions from the burning of natural gas to heat dross Kettles #1, #2, #3, and #4. | Baghouse I&M Program | Baghouse I&M Program | Semi-annual |
| HH.5, HH.7, HH.9, HH.10 | Control of Reverberatory Furnace and the Reverb. charge hole Emissions | Dross Plant Baghouse and associated ventilation equipment shall be used to control (combustion) emissions | Baghouse I&M Program | Baghouse I&M Program | Semi-annual |

***Prior to construction of the Dross Plant Baghouse and Stack, combustion emissions for Kettles were vented to stacks 11P, 12P, 13P, and 14P respectively.**

Conditions

- HH.1. ASARCO shall not cause or authorize emissions to be discharged to the atmosphere from Dross Plant Natural Gas Combustion that exhibit an opacity of 20% or greater averaged over 6 consecutive minutes (ARM 17.8.304).
- HH.2. ASARCO shall not cause or authorize emissions of particulate matter from Dross Plant Natural Gas Combustion caused by the combustion of fuel to be discharged into the outdoor atmosphere in excess of $E = 1.026 * H^{-0.233}$, the maximum allowable emissions of particulate matter for fuel-burning equipment, where H is the heat input capacity in million BTU (MMBtu) per hour and E is the maximum allowable particulate emission rate in pounds per MMBtu (ARM 17.8.309).
- HH.3. ASARCO shall not burn any gaseous fuel containing sulfur compounds in excess of 50 grains per 100 cubic feet of gaseous fuel, calculated as hydrogen sulfide at standard conditions, unless otherwise specified by rule or in this permit (ARM 17.8.322(5)).
- HH.4. ASARCO shall utilize the Dross Plant Baghouse and associated ventilation equipment to supply ventilation to and control combustion emissions from the Kettles #1, #2, #3, and #4; combustion emissions shall be vented to combustion ventilation ducts that shall run to the roof area where combustion emissions shall be collected by the ductwork providing general ventilation to the Dross Building. (Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000).

- HH.5. ASARCO shall utilize the Dross Plant Baghouse and associated ventilation equipment to supply ventilation to and control emissions from the Reverberatory Furnace and Reverberatory Furnace Charge Hole (Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000).

Compliance Demonstration

- HH.6. The compliance demonstration required by this permit for opacity (HH.1), particulate matter from fuel combustion (HH.2), and sulfur in fuel requirements (HH.3) shall consist of burning only natural gas. This does not preclude the Department from initiating an enforcement action if a Reference Method test indicates one of the limits is being violated.
- HH.7. ASARCO shall, on an ongoing basis, operate and maintain the Dross Plant Baghouse in accordance with the Baghouse Inspection and Maintenance Program.

Recordkeeping

- HH.8. Recordkeeping is not required to monitor compliance with ARM 17.8.304, ARM 17.8.309, and ARM 17.8.322.
- HH.9. ASARCO shall maintain on-site records of all inspection and maintenance activities performed in accordance with Baghouse Inspection and Maintenance Program.

Reporting

- HH.10. The annual compliance certification report required by Section V.B must contain a certification statement for the above applicable requirements, and that only natural gas was combusted in the Dross Plant emission units identified above. The semi-annual reporting shall provide the results from any tests performed and any corrective actions taken as a result of the inspections and maintenance required by the Baghouse Inspection and Maintenance Program.

II. EU059 - EU067 Dross Plant Process Emissions (21P)

EU059 - Kettle # 1 Process Emissions
 EU060 - Kettle # 2 Process Emissions
 EU061 - Kettle # 3 Process Emissions
 EU066 - Speiss/Matte Tap
 EU067 - Speiss/Matte Launder

EU064 - Reverberatory Furnace
 EU065 - Reverberatory Furnace Charge Hole
 EU062 - Kettle # 4 Process Emissions
 EU063 - #4 Launder

| Condition(s) | Pollutant / Parameter | Permit / SIP Limit | Compliance Method | Demonstration Frequency | Reporting Requirements |
|--|---|---|----------------------------|--------------------------|------------------------|
| II.1, II.8, II.9, II.12, II.13, II.16, II.17 | Opacity | 20% | COMS | Ongoing | Quarterly |
| | | | Baghouse I&M | Baghouse I&M Program | Semi-annual |
| II.2, II.10, II.15, II.16, II.17 | Kettle Operation | No more than two dross kettles shall be operated at a time when the dross reverberatory furnace is operating. | Monitoring & Recordkeeping | Ongoing | Semi-annual |
| II.3, II.11, II.14, II.16 | Minimum Airflow | The plenum ventilating the dross reverberatory furnace, the #4 Kettle and launder, shall maintain a minimum volumetric flowrate of 28,000 ACFM. | Method 2 | As Required by the Dept. | Semi-annual |
| II.4, II.9, II.13, II.16 | Kettle Hood Design and Operation | Each kettle (1-4) shall be ventilated with a hood at all times that the kettle is in use | Baghouse I&M Program | Baghouse I&M Program | Semi-annual |
| II.5, II.9, II.13, II.16 | Reverberatory Furnace Hood Operations | Hoods shall be operated on the Reverberatory furnace, the Reverberatory Furnace charge hole, the Speiss/Matte tap, & the Speiss/Matte Launder. | Baghouse I&M Program | Baghouse I&M Program | Semi-annual |
| II.6, II.9, II.13, II.16 | Reverberatory Furnace Arch Ventilation | Divert charge hole ventilation volume to ventilate the Dross Reverberatory Furnace Arch during non-charging activities. | Baghouse I&M Program | Baghouse I&M Program | Semi-annual |
| II.7, II.9, II.13, II.16 | Reverberatory Furnace Charge Hole Hood Design | A hood designed to effectively control emissions shall be constructed and operated on the reverberatory furnace charge hole. | Baghouse I&M Program | Baghouse I&M Program | Semi-annual |

Conditions

- II.1 ASARCO shall not cause or authorize emissions to be discharged to the atmosphere from Dross Plant Processes that exhibit an opacity of 20% or greater averaged over 6 consecutive minutes (Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000).
- II.2 ASARCO shall not operate more than 2 Dross Kettles concurrently when the Dross Reverberatory Furnace is operating (Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000).

- II.3 ASARCO shall maintain a minimum airflow of 28,000 acfm through the plenum that ventilates the Reverberatory Furnace, # 4 Kettle, and #4 Launder (Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000).
- II.4 ASARCO shall design and operate each Kettle Hood such that each Kettle shall be ventilated at all times the Kettle is in use, including drossing (black skimming), pumping of molten lead, adding of fluxes, and stirring of fluxes (Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000).
- II.5 ASARCO shall operate ventilation hoods on the Reverberatory Furnace, the Reverberatory Furnace Charge Hole, the Speiss/Matte tap, and the Speiss/Matte Launder (Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000).
- II.6 ASARCO shall divert the charge hole ventilation volume to ventilate the Reverberatory Furnace Arch during non-charging activities (ARM 17.8.710).
- II.7 ASARCO shall design the Reverberatory Furnace Charge Hole Hood to effectively control emissions (Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000).

Compliance Demonstration

- II.8 ASARCO shall monitor compliance with the 20% opacity requirement of II.1 by using data acquired from the continuous opacity monitoring system (COMS) monitoring the emissions from the Dross Plant Stack.
- II.9 ASARCO shall, on an ongoing basis, operate and maintain the Dross Plant Baghouse in accordance with Baghouse Inspection and Maintenance Program.
- II.10 ASARCO shall monitor compliance with II.2 by performing recordkeeping of dross kettle operations, including the hours of operation of the Dross Plant.
- II.11 As required by the Department, ASARCO shall perform a Method 2 test in accordance with the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106). Alternatively, ASARCO may monitor compliance with this requirement by performing a Method 2(a), 2(b), 2(c), or 2(d) test.

Recordkeeping

- II.12 ASARCO shall maintain all data collected by the COMS required by Section 6 of the Lead Control Plan such that they are able to monitor compliance with the requirement of II.1 of this permit. All COMS data shall be maintained on site by ASARCO for at least 5 years after the date of data generation. This electronic data shall be made available to Department personnel upon request and shall be submitted to the Department consistent with Sections 6 and 9 (Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000).
- II.13 ASARCO shall maintain on-site records of all inspection and maintenance activities performed in accordance with Baghouse Inspection and Maintenance Program.
- II.14 All test reports must be maintained on site and must be submitted to the Department in accordance with the Montana Source Test Protocol and Procedures Manual.

- II.15 ASARCO shall maintain a log of Dross Kettle operations. The Kettle operations log shall be maintained on site and submitted to the Department upon request.

Reporting

- II.16 The annual compliance certification report required by Section V.B must contain a certification statement for the above applicable requirements. The semi-annual reporting shall provide the results from any tests performed, the "Dross Plant Daily Production Sheet", and any corrective actions taken as a result of the inspections and maintenance required by Baghouse Inspection and Maintenance Program.
- II.17 Quarterly reporting shall provide the COMS data as prescribed by Sections 6 and 9 of the Lead Control Plan and the operating hours of the Dross Plant. Consistent with the Lead Control Plan, ASARCO shall submit quarterly reports within 45 days of the end of each calendar quarter. The quarterly reports shall be submitted to the Department's Permitting and Compliance office in Helena. The quarterly report format shall consist of both a comprehensive electronic-magnetic report and a written or hard copy data summary report.

JJ. EU068 - Dross Plant Building (19P)

| Condition(s) | Pollutant / Parameter | Permit / SIP Limit | Compliance Method | Demonstration Frequency | Reporting Requirements |
|---------------------------------------|---|--|------------------------------|--------------------------|------------------------|
| JJ.1, JJ.8, JJ.9, JJ.14, JJ.15, JJ.19 | Opacity | 20% | Method 9 | Ongoing | Semi-annual |
| | | | Baghouse I&M | Baghouse I&M Program | Semi-annual |
| JJ.2, JJ.10, JJ.16, JJ.19 | Maximum Quarterly Fugitive Lead Emissions from the Dross Building | 103 lb Pb per quarter using an emission factor of 0.0031 lb Pb per ton of Furnace Lead produced, and Equation 3. | Monitoring and Recordkeeping | Ongoing | Semi-annual |
| JJ.3, JJ.11, JJ.14, JJ.19 | Minimum Ventilation Airflow | 52,000 ACFM when the Dross Plant is Operating. | Method 2 | Annually | Semi-annual |
| JJ.4, JJ.12, JJ.17, JJ.19 | Natural Draft Openings (NDO) | $NDO \leq 560 \text{ ft}^2$ | Direct Measurement | As Required by the Dept. | Semi-annual |
| JJ. 5, JJ.9, JJ.15, JJ.19 | Dross Building Ventilation and Emission Control | The Dross Plant Baghouse | Baghouse I&M Program | Baghouse I&M Program | Semi-annual |
| JJ.6, JJ.13, JJ.18, JJ.19 | Wall & Roof Penetrations | Sealed to the Maximum Extent Practicable | Visual Surveys | Weekly | Semi-annual |
| JJ.7, JJ.13, JJ.18, JJ.19 | Dross Building Roofing & Siding Maintenance | Roofing and Siding Maintained in Good Repair; Roofing and Siding repaired within 10 days of discovery of damage. | Visual Surveys | Weekly | Semi-annual |

Conditions

- JJ.1 ASARCO shall not cause or authorize emissions to be discharged to the atmosphere from the Dross Plant Building that exhibit an opacity of 20% or greater averaged over 6 consecutive minutes (Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000).

- JJ.2 ASARCO shall not cause or authorize fugitive lead emissions from the Dross Plant Building to exceed 103 lb per quarter (determined by using Equation 3 and an emission factor of 0.0031 lb Pb per ton of Furnace Lead Produced)(Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000).
- JJ.3 ASARCO shall provide a minimum air flow of 52,000 ACFM to the Dross Plant Building for general Dross Building and roof area ventilation when the Dross Plant is Operating (Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000).
- JJ.4 ASARCO shall not allow the Natural Draft Opening(s) (NDO) of the Dross Plant Building to exceed 560 ft² (Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000).
- JJ.5 ASARCO shall utilize the Dross Plant Baghouse and associated ventilation equipment to supply ventilation to and control emissions from the Dross Plant Building (Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000).
- JJ.6 ASARCO shall, to the maximum extent practicable, seal wall and roof penetrations in the Dross Plant Building to minimize building emissions (Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000).
- JJ.7 ASARCO shall maintain the roofing and siding of the Dross Plant Building such that it is in good repair; ASARCO shall repair roofing and siding within 10 days of discovery of damage (Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000).

Compliance Demonstration

- JJ.8 As required by the Department, ASARCO shall perform a Method 9 test in accordance with the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106). Each observation period shall be a minimum of 6 minutes, unless any one reading is greater than the relevant opacity limit (20%); then the observation period shall be a minimum of 20 minutes or until a violation of the standard has been documented, whichever is a shorter period of time.
- JJ.9 ASARCO shall, on an ongoing basis, operate and maintain the Dross Plant Baghouse and associated ventilation equipment in accordance with the Baghouse Inspection and Maintenance Program.
- JJ.10 ASARCO shall monitor compliance with the fugitive lead emission limit, 103.0 lb/quarter, by monitoring and recording tons of Furnace Lead processed through the Dross Plant (and using the emission factor of 0.0031 lb Pb per ton of Furnace Lead with Equation 3 of the Lead Control Plan) on an ongoing basis. ASARCO may utilize the Furnace Lead production data required by Y.18 to monitor compliance with JJ.2
- JJ.11 Annually ASARCO shall perform a Method 2 test in accordance with the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106). Alternatively, ASARCO may monitor compliance with this requirement by performing a Method 2A, 2B, 2C, or 2D test.
- JJ.12 As required by the Department, ASARCO shall determine the Natural Draft Opening (NDO) of the Dross Plant Building. ASARCO shall certify annually that the NDO of the Dross Plant Building is less than or equal to 560 ft².

- JJ.13 ASARCO shall perform weekly visual surveys (inspections) of the Dross Plant Building and maintain a log of the inspection activities to monitor compliance with requirements JJ.6 and JJ.7. If damage to the Dross Building Roofing or Siding is identified during inspections, ASARCO shall log the damage and initiate repair activities within 10 days.

Recordkeeping

- JJ.14 All test reports must be maintained on site and must be submitted to the Department in accordance with the Montana Source Test Protocol and Procedures Manual.
- JJ.15 ASARCO shall maintain on-site records of all inspection and maintenance activities performed in accordance with Baghouse Inspection and Maintenance Program.
- JJ.16 ASARCO shall maintain on-site records of the quantity of Furnace Lead introduced to the Dross Plant. ASARCO may utilize the Furnace Lead production data to monitor compliance with JJ.2. Records shall be submitted to the Department upon request.
- JJ.17 NDO determinations shall be maintained on-site, and shall be made available to the Department upon request.
- JJ.18 A log of the weekly visual survey results shall be maintained on site and submitted to the Department upon request. The log shall include the date, time, observer's initials, and any corrective actions that have been identified, as well as those actions accomplished.

Reporting

- JJ.19 The annual compliance certification report required by Section V.B must contain a certification statement for the above applicable requirements. The semiannual reporting shall provide a summary of results for all source testing performed within the reporting period, all weekly visual survey results and repairs, fugitive lead emissions from the Dross Plant Building, and any corrective actions taken as a result of the inspections and maintenance required by Baghouse Inspection and Maintenance Program. The quarterly reporting shall provide the tonnage of Furnace Lead processed through the Dross Plant.

KK. EU069 - Dross Plant Baghouse (21P)

| Condition(s) | Pollutant / Parameter | Permit / SIP Limit | Compliance Demonstration Method | Frequency | Reporting Requirements |
|---------------------------|-----------------------|-----------------------|------------------------------------|----------------------|------------------------|
| KK.1, KK.9, KK.13, KK.17 | Opacity | 20% | COM | Ongoing | Semi-annual |
| | | | Baghouse I&M | Baghouse I&M Program | Semi-annual |
| KK.2, KK.9, KK.13, KK.17 | COMS | Install and Operate | Monitoring and Recording COMS Data | Ongoing | Quarterly |
| KK.3, KK.11, KK.14, KK.17 | Particulate Matter | 0.022 gr/dscf | Method 5 | 2 Years | Semi-annual |
| KK.4, KK.10, KK.15, KK.17 | Air-to-Cloth Ratio | Ratio \leq 3.6 to 1 | Baghouse I&M Program | Baghouse I&M Program | Semi-annual |

| Condition(s) | Pollutant / Parameter | Permit / SIP Limit | Compliance Demonstration | | Reporting Requirements |
|---------------------------|--|--|----------------------------|----------------------|------------------------|
| KK.5, KK.10, KK.15, KK.17 | Emission Control and Ventilation (II.B.17.e) | The Dross Plant Baghouse and associated Ventilation Equipment shall be used to supply ventilation and control emissions from the dross reverberatory furnace, the #4 kettle and launder, the Reverberatory Furnace charge hole, the Speiss/Matte tap, the Speiss/Matte launder, the dross kettles (1, 2, & 3) (both combustion and process emissions), and the Dross Building general ventilation, while the Dross Plant is operating. | Baghouse I&M Program | Baghouse I&M Program | Semi-annual |
| KK.6, KK.10, KK.15, KK.17 | Baghouse Dust | Baghouse dust shall be transferred in a totally enclosed pneumatic conveying system. | Baghouse I&M Program | Baghouse I&M Program | Semi-annual |
| KK.7, KK.10, KK.15, KK.17 | Baghouse Emissions | Emissions from the Dross Plant Baghouse shall be vented to the Dross Plant Stack. | Baghouse I&M Program | Baghouse I&M Program | Semi-annual |
| KK.8, KK.12, KK.16, KK.17 | Fan Operation | A device to monitor and record hours of fan operation shall be installed and operated on the Dross Plant Baghouse Fan. | Monitoring & Recordkeeping | Ongoing | Quarterly |

Conditions

- KK.1 ASARCO shall not cause or authorize emissions to be discharged to the atmosphere from the Dross Plant Baghouse that exhibit an opacity of 20% or greater averaged over 6 consecutive minutes (Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000).
- KK.2 ASARCO shall install, calibrate, operate, and maintain a continuous opacity monitoring system (COMS) on the Dross Plant Stack (Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000).
- KK.3 ASARCO shall not cause or authorize emissions of particulate matter from the Dross Plant Baghouse to be discharged to atmosphere that exceed 0.022 grains per dscf (ARM 17.8.340).
- KK.4 ASARCO shall assure that the Dross Plant Baghouse maintains a maximum air-to-cloth ratio of 3.6 to 1 (Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000).
- KK.5 ASARCO shall utilize the Dross Plant Baghouse and associated ventilation equipment to supply ventilation to and control emissions from the dross reverberatory furnace, the #4 kettle and launder, the Reverberatory Furnace charge hole, the Speiss/Matte tap, the Speiss/Matte launder, the dross kettles (1, 2, & 3) (both combustion and process emissions), and the Dross Building general ventilation whenever (any emitting unit in) the Dross Plant is operating (Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000).
- KK.6 ASARCO shall transfer the Dross Plant Baghouse Dust in a totally enclosed conveying system to minimize emissions associated with the transferring of baghouse dusts (Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000).

- KK.7 ASARCO shall discharge the emissions from the Dross Plant Baghouse to the Dross Plant Stack (Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000).
- KK.8 ASARCO shall, on an ongoing basis, monitor and record the hours of fan operation each quarter for the Dross Plant Baghouse Fan (Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000).

Compliance Demonstration

- KK.9 ASARCO shall monitor compliance with KK.1 and KK.2 by using data acquired from the continuous opacity monitoring system (COMS) monitoring the emissions from the Dross Plant Stack, and calibrating, operating and maintaining the COMS as prescribed in Sections 6 and 9.
- KK.10 ASARCO shall, on an ongoing basis, operate and maintain the Dross Plant Baghouse and associated ventilation equipment in accordance with Baghouse Inspection and Maintenance Program.
- KK.11 ASARCO shall perform a Method 5 test every 2 years in accordance with the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106).
- KK.12 ASARCO shall, on an ongoing basis, monitor and record the hours of fan operation each quarter for the Dross Plant Baghouse Fan.

Recordkeeping

- KK.13 ASARCO shall maintain all data collected by the COMS required by Section 6 (Lead Control Plan) such that they are able to monitor compliance with the requirements of KK.1 and KK.2 of this permit. All COMS data shall be maintained on site by ASARCO for at least 5 years after the date of data generation. This electronic data shall be made available to Department personnel upon request and shall be submitted to the Department consistent with Sections 6 and 9 (Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000).
- KK.14 All test reports must be maintained on site and must be submitted to the Department in accordance with the Montana Source Test Protocol and Procedures Manual.
- KK.15 ASARCO shall maintain on-site records of all inspection and maintenance activities performed in accordance with the Baghouse Inspection and Maintenance Program.
- KK.16 ASARCO shall record and maintain on site the hours of fan operation each quarter for the Dross Plant Baghouse Fan.

Reporting

- KK.17 The annual compliance certification report required by Section V.B must contain a certification statement for the above applicable requirements. The semiannual reporting shall provide the results of any tests performed, and any corrective actions taken as a result of the inspections and maintenance required by the Baghouse Inspection and Maintenance Program. The quarterly reporting shall provide:
- a. The number of hours of baghouse fan operation; and

- b. The COMS data as prescribed by Sections 6 and 9. Consistent with the Lead Control Plan, ASARCO shall submit quarterly reports within 45 days of the end of each calendar quarter. The quarterly reports shall be submitted to the Department's Permitting and Compliance office in Helena. The quarterly report format shall consist of both a comprehensive electronic-magnetic report and a written or hard copy data summary report.

LL.EU070 - Dross Plant Stack - 21P

| Condition(s) | Pollutant / Parameter | Permit / SIP Limit | Compliance Demonstration Method | Frequency | Reporting Requirements |
|---------------------------------------|--|---------------------------|------------------------------------|----------------------|------------------------|
| LL.1, LL.8, LL.9, LL.15, LL.18, LL.19 | Opacity | 20% | COMS | Ongoing | Quarterly |
| | | | Baghouse I&M | Baghouse I&M Program | Semi-annual |
| LL.2, LL.8, LL.15, LL.18, LL.19 | COMS | Install and Operate | Monitoring and Recording COMS Data | Ongoing | Quarterly |
| LL.3, LL.10, LL.16, LL.18 | Particulate Matter | 19.63 lb/hr | Method 5 | Annual | Semi-annual |
| LL.4, LL.11, LL.16, LL.18 | Lead | 3.48 lb per hour. | Method 12 | Annual | Semi-annual |
| LL.5, LL.12, LL.16, LL.18 | Sulfur Dioxide | 27.39 lb/hr | Method 6/6C | Annual | Semi-annual |
| LL.6, LL.13, LL.16, LL.18 | Dross Plant Baghouse Stack and associated ventilation system Minimum Airflow | 117,000 ACFM | Method 2 | Annually | Semi-annual |
| LL.7, LL.14, LL.17, LL.18 | Minimum Stack Height | 200 ft above ground level | Normal Operations | Annual Certification | Annual Certification |

Conditions

- LL.1 ASARCO shall not cause or authorize emissions to be discharged to the atmosphere from the Dross Plant Stack that exhibit an opacity of 20% or greater averaged over 6 consecutive minutes (Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000).
- LL.2 ASARCO shall install, calibrate, operate, and maintain a continuous opacity monitoring system (COMS) on the Dross Plant Stack (Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000).
- LL.3 ASARCO shall not cause or authorize emissions of particulate matter from the Dross Plant Stack to be discharged to atmosphere that exceed 19.63 lb per hour (ARM 17.8.715).
- LL.4 ASARCO shall not cause or authorize emissions of lead from the Dross Plant Stack to be discharged to atmosphere that exceed 3.48 lb per hour (SIP limit for Pb = 3.4923 lb/hr) (ARM 17.8.715).
- LL.5 ASARCO shall not cause or authorize emissions of Sulfur Dioxide (SO₂) from the Dross Plant Stack to be discharged to atmosphere that exceed 27.39 lb per hour (ARM 17.8.710).
- LL.6 ASARCO shall assure a minimum air flow of 117,000 ACFM through the Dross Plant Baghouse Stack and associated ventilation system when the Dross Plant is Operating (Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000).

- LL.7 ASARCO shall construct, operate, and maintain a Dross Plant Baghouse Stack with a minimum (exhaust) height of 200 feet above ground level (Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000).

Compliance Demonstration

- LL.8 ASARCO shall monitor compliance with LL.1 and LL.2 by using data acquired from the continuous opacity monitoring system (COMS) monitoring the emissions from the Dross Plant Stack, and calibrating, operating and maintaining the COMS as prescribed in Sections 6 and 9 of the SIP.
- LL.9 ASARCO shall, on an ongoing basis, operate and maintain the Dross Plant Baghouse in accordance with Baghouse Inspection and Maintenance Program.
- LL.10 ASARCO shall perform a Method 5 test annually in accordance with the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106).
- LL.11 ASARCO shall perform a Method 12 test annually in accordance with the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106).
- LL.12 ASARCO shall perform a Method 6/6C (or Department approved equivalent method) test annually in accordance with the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106).
- LL.13 Annually ASARCO shall perform a Method 2 test in accordance with the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106). Alternatively, ASARCO may monitor compliance with this requirement by performing a Method 2A, 2B, 2C, or 2D test.
- LL.14 ASARCO shall certify annually that the Dross Plant Stack exhausts at an elevation 200 feet above ground level.

Recordkeeping

- LL.15 ASARCO shall maintain all data collected by the COMS required by Section 6 such that they are able to monitor compliance with the requirements of LL.1 and LL.2 of this permit. All COMS data shall be maintained on site by ASARCO for at least 5 years after the date of data generation. This electronic data shall be made available to Department personnel upon request and shall be submitted to the Department consistent with Sections 6 and 9 (Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000).
- LL.16 All test reports must be maintained on site and must be submitted to the Department in accordance with the Montana Source Test Protocol and Procedures Manual.
- LL.17 ASARCO is not required to perform recordkeeping for LL.7 and LL.14.

Reporting

- LL.18 The annual compliance certification report required by Section V.B must contain a certification statement for the above applicable requirements. The semi-annual reporting shall provide the results from any tests performed, and any corrective actions taken as a result of the inspections and maintenance required by the Baghouse Inspection and Maintenance Program.

LL.19 Quarterly reporting shall provide the COMS data as prescribed by Sections 6 and 9 of the Lead Control Plan. Consistent with the Lead Control Plan, ASARCO shall submit quarterly reports within 45 days of the end of each calendar quarter. The quarterly reports shall be submitted to the Department's Permitting and Compliance office in Helena. The quarterly report format shall consist of both a comprehensive electronic-magnetic report and a written or hard copy data summary report.

MM. EU071 - EU072 Speiss & Matte Handling

EU071 - Speiss & Matte Granulating Pit (*16P)

EU072 - Speiss & Matte Handling Facility (15V)

| Condition(s) | Pollutant / Parameter | Permit / SIP Limit | Compliance Demonstration Method | Frequency | Reporting Requirements |
|----------------------------|---|--|---------------------------------|--------------------------|------------------------|
| MM.1, MM.12, MM.19, MM.23 | Opacity (Granulating) | 20% | Method 9 | As Required by the Dept. | Semi-annual |
| MM.2, MM.13, MM.19, MM.23 | Opacity (Handling) | Reasonable Precautions | Visual Surveys | Weekly | Semi-annual |
| MM.3, MM.14, MM.22, MM.23 | Particulate Matter | $E = 4.10 \times P^{0.67}$ | Normal Operations | Annual Certification | Annual Certification |
| MM.4, MM.15, MM.20, MM.23 | Air/Mist Granulation Pit | Speiss/Matte shall be air/mist granulated into a ventilated enclosure. | Baghouse I&M Program | Baghouse I&M Program | Semi-annual |
| MM.5, MM.15, MM.20, MM.23 | Ventilation and Emission Control | Ventilation and Emission Control may be provided by either the Dross Plant Baghouse or the Blast Furnace Baghouse. | Baghouse I&M Program | Baghouse I&M Program | Semi-annual |
| MM.6, MM.15, MM.20, MM.23 | Ventilation and Emission Control | Ventilation and Emission Control shall be provided by the Blast Furnace Baghouse. | Baghouse I&M Program | Baghouse I&M Program | Semi-annual |
| MM.7, MM.16, MM.20, MM.23 | Blast Furnace Baghouse Ventilation | Asarco shall ensure that the airflow at the granulating pit and all the other sources controlled by the blast furnace baghouse is adequate to control emissions from those same sources. | Baghouse I&M Program | As Required by the Dept. | Semi-annual |
| MM.8, MM.17, MM.21, MM.23 | Granulated Speiss/Matte handling. | Front-end Loader. | Plant Accounting Records | Ongoing | Annual Certification |
| MM.9, MM.18, MM.22, MM.23 | Dewatering | Granulated Speiss/Matte shall be dewatered on the pad prior to shipment. | Lead Control Plan | Lead Control Plan | Annual Certification |
| MM.10, MM.17, MM.21, MM.23 | Maximum Speiss/Matte dropped outdoors per quarter | No more than 16,600 tons (8,300 tons of Speiss/Matte dropped twice) as determined by plant accounting records. | Plant Accounting Records | Ongoing | Quarterly |
| MM.11, MM.18, MM.22, MM.23 | Oversized Speiss/Matte | Returned to the Dross Reverberatory Furnace | Lead Control Plan | Lead Control Plan | Annual Certification |

***The Speiss & Matte Granulating Pit is also referred to as the Granulating Bunker. Ventilation was formerly provided by the Dross Plant Baghouse, but is now provided by the Blast Furnace Baghouse.**

Conditions

- MM.1 ASARCO shall not cause or authorize emissions to be discharged to the atmosphere from the Speiss/Matte Granulating Pit that exhibit an opacity of 20% or greater averaged over 6 consecutive minutes (Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000).
- MM.2 ASARCO shall not cause or authorize the production, handling, transportation, or storage of Speiss/Matte unless reasonable precautions to control emissions of particulate matter are taken. Such emissions of airborne particulate matter from any stationary source shall not exhibit an opacity of 20% or greater averaged over 6 consecutive minutes, unless otherwise specified by rule or in this permit (ARM 17.8.308(1)).
- MM.3 ASARCO shall not cause or authorize particulate matter to be discharged from Speiss/Matte Granulation and Handling into the outdoor atmosphere in excess of the maximum hourly allowable emissions of particulate matter calculated using $E = 4.10 \times P^{0.67}$, where E is the rate of emissions in pounds per hour and P is the process weight rate in tons per hour (ARM 17.8.310).
- MM.4 ASARCO shall air/mist granulate Speiss/Matte into a ventilated enclosure: the Speiss/Matte Granulating Pit (Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000).
- MM.5 ASARCO shall provide ventilation and emission control to the Speiss/Matte Granulating Pit by either the Dross Plant Baghouse or the Blast Furnace Baghouse (Preconstruction pemrit #2557-11, Section II.B.29)
- MM.6 ASARCO shall provide ventilation and emission control to the Speiss/Matte Granulating Pit through the Blast Furnace Baghouse (Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000).
- MM.7 ASARCO shall ensure that the airflow at the granulating pit and all the other sources controlled by the Blast Furnace Baghouse is adequate to control emissions from those sources (Permit # 2557-11).
- MM.8 ASARCO shall remove granulated speiss/matte from the ventilated enclosure (granulating pit) by front-end loader (Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000).
- MM.9 ASARCO shall dewater granulated speiss/matte on the Dewatering Pad prior to handling and shipment (Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000).
- MM.10 ASARCO shall not handle more than 16,600 tons of speiss/matte (8,300 tons dropped twice) per quarter at the Speiss/Matte Handling Facility - 15V (Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000).
- MM.11 ASARCO shall screen the speiss/matte and return over-sized speiss/matte to the Dross Reverberatory Furnace for re-processing (Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000).

Compliance Demonstration

- MM.12 As required by the Department, ASARCO shall perform a Method 9 test in accordance with the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106). Each observation period shall be a minimum of 6 minutes, unless any one reading is greater than the relevant opacity limit (20%); then the observation period shall be a minimum of 20 minutes or until a violation of the standard has been documented, whichever is a shorter period of time.
- MM.13 For the purpose of certification, ASARCO shall perform weekly visual surveys of the visible emissions from the material handling operation. Conducting a visual survey does not relieve ASARCO from the liability of a violation documented with a Method 9 test. The person conducting the visual survey does not have to be an EPA Method 9 certified observer; however, the individual must be familiar with the procedures of EPA Method 9, including the proper location from which to observe visible emissions. If excessive fugitive emissions are identified, ASARCO shall initiate efforts to minimize or curtail the emissions.
- MM.14 ASARCO is required to maintain normal operations to monitor compliance with MM.3.
- MM.15 ASARCO shall, on an ongoing basis, operate and maintain the Dross Plant Baghouse and the Blast Furnace Baghouse in accordance with the Baghouse Inspection and Maintenance Program.
- MM.16 ASARCO shall monitor compliance with the ventilation requirement of MM.6 by demonstrating that all ventilation hoods and air flowrates are designed to conform with the Baghouse Inspection and Maintenance Program.
- MM.17 ASARCO shall utilize plant accounting records to monitor compliance with MM.7 and MM.9.
- MM.18 ASARCO shall handle and process speiss/matte as prescribed by the Lead Control Plan. ASARCO shall certify annually that speiss/matte is dewatered on the dewatering pad prior to shipment. ASARCO shall certify annually that any speiss/matte screened, and any oversized speiss/matte produced is returned to the reverberatory furnace for reprocessing or shipped off-site for processing.

Recordkeeping

- MM.19 All test reports must be maintained on site and must be submitted to the Department in accordance with the Montana Source Test Protocol and Procedures Manual. A log of the weekly visual survey results shall be maintained on site and submitted to the Department upon request. The log shall include the date, time, observer's initials, and any corrective actions that have been taken.
- MM.20 ASARCO shall maintain on-site records of all inspection and maintenance activities performed in accordance with the Baghouse Inspection and Maintenance Program. Records shall be submitted to the Department upon request.
- MM.21 ASARCO shall determine and record the total tons of speiss/matte dropped during the quarter. Records shall be submitted to the Department upon request. (ASARCO shall determine the tonnage dropped by plant accounting records.)
- MM.22 ASARCO is not required to perform recordkeeping for MM.3, MM.8, and MM.10.

Reporting

MM.23 The annual compliance certification report required by Section V.B must contain a certification statement for the above applicable requirements. The semiannual reporting shall provide a summary of results for all source testing performed within the reporting period, a summary of all weekly visual survey results, and any corrective actions taken as a result of the inspections and maintenance required by the Baghouse Inspection and Maintenance Program. The quarterly reporting shall provide the tons of Speiss/Matte dropped per quarter.

NN. EU073 - Paved Plant Areas and Roads within the ASARCO Facility (3A)

| Condition(s) | Pollutant / Parameter | Permit / SIP Limit | Compliance Demonstration Method | Frequency | Reporting Requirements |
|-----------------------------|---------------------------------------|--|--|-----------------------------------|-------------------------------|
| NN.1, NN.10, NN.15 NN.17 | Opacity | 5% | Method 9 | As Required by the Dept. | Semi-annual |
| NN.2, NN.11, NN.16, NN.17 | Maintenance & Cleaning of Paved Areas | ASARCO shall sweep or spray with water all paved roads within the facility on a regular basis as necessary to meet the 5% opacity limitation. | Lead Control Plan, 40 CFR Part 63 | All Maintenance Activities | Annual Certification |
| NN.3, NN.11, NN.16, NN.17 | Paved Road Maintenance & Repair | All paved roads within ASARCO's East Helena Facility shall be maintained in good condition. | Lead Control Plan, 40 CFR Part 63 | All Maintenance Activities | Annual Certification |
| NN.4, NN.12, NN.16, NN.17 | Sweepers | At a minimum, ASARCO shall maintain two sweepers (roadway or vacuum sweepers) for use in the plant. | Lead Control Plan, 40 CFR Part 63 | Lead Control Plan, 40 CFR Part 63 | Annual Certification |
| NN.5, NN.11, NN.16, NN.17 | Dry Sweeping Material Handling | The sweeping material collected by dry sweepers shall be emptied within an enclosed building which is ventilated and controlled by a particulate control device(s) which meets the criteria of Best Available Control Technology (BACT). | Lead Control Plan, 40 CFR Part 63 | Lead Control Plan, 40 CFR Part 63 | Annual Certification |
| NN.6, NN.11, NN.16, NN.17 | Wet Sweeping Material Handling | Sweeping material collected by wet sweepers shall be emptied at the equipment washdown area. | Lead Control Plan, 40 CFR Part 63 | Lead Control Plan, 40 CFR Part 63 | Annual Certification |
| NN.7, NN.13, NN.16, NN.17 | Sweeping Material | The emptying of sweeping material shall be in compliance with all applicable local, state and federal requirements. | Lead Control Plan, 40 CFR Part 63 | Lead Control Plan, 40 CFR Part 63 | Annual Certification |
| NN.8, NN.11, NN.16, NN.17 | Spills | Any spills of dust on paved roads or on paved areas within the plant shall be cleaned up by ASARCO | Lead Control Plan, 40 CFR Part 63 | Lead Control Plan, 40 CFR Part 63 | Annual Certification |
| NN.9, NN.14, NN.16, NN.17 | Sanding Material | Within the facility, ASARCO shall use only commercially available sanding material for deicing purposes which has a Lead Content of 0.0148% or less. | Lead Control Plan, 40 CFR Part 63 | Lead Control Plan, 40 CFR Part 63 | Annual Certification |

Conditions

NN.1 ASARCO shall not cause or authorize visible emissions from roads within the ASARCO facility that exceed 5% (Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000).

- NN.2 ASARCO shall sweep or spray with water all paved roads within the facility on a regular basis as necessary to meet the 5% opacity limitation (Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000).
- NN.3 ASARCO shall maintain all paved roads in good condition within the ASARCO East Helena Facility (Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000).
- NN.4 ASARCO shall maintain a minimum of two sweepers (roadway or vacuum sweepers) for use in the plant (Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000).
- NN.5 ASARCO shall empty the sweeping material collected by dry sweepers within an enclosed building that is ventilated and controlled by a particulate control device(s), which meets the criteria of Best Available Control Technology (BACT) (Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000).
- NN.6 ASARCO shall empty the sweeping material collected by wet sweepers at the equipment washdown area (Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000).
- NN.7 ASARCO shall assure that the emptying of sweeping material is conducted in such a fashion as to be in compliance with all applicable local, state and federal requirements (Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000).
- NN.8 ASARCO shall clean up any spills of dust on paved roads or on paved areas within the plant (Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000).
- NN.9 Within the facility, ASARCO shall use only commercially available sanding material for deicing purposes which has a Lead Content of 0.0148% or less (Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000).

Compliance Demonstration

- NN.10 As required by the Department, ASARCO shall perform a Method 9 test in accordance with Lead Control Plan and the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106). Each observation period shall be a minimum of 6 minutes, unless any one reading is greater than the 5%; then the observation period shall be a minimum of 20 minutes or until a violation of the standard has been documented, whichever is a shorter period of time.
- NN.11 ASARCO shall monitor compliance with requirements NN.2, NN.3, NN.5, NN.6, and NN.8 by satisfying the requirements of the Lead Control Plan and 40 CFR Part 63 (Section 63.1544). For opacity, ASARCO shall keep inspection and maintenance records for all plant roadways
- NN.12 ASARCO shall monitor compliance with requirement NN.4 by satisfying the requirements of the Lead Control Plan and 40 CFR Part 63 (Section 63.1544). ASARCO shall certify annually that it currently utilizes and maintains a minimum of two sweepers for the purposes of plant paved areas and road cleaning and sweeping.
- NN.13 ASARCO shall certify annually, consistent with the Lead Control Plan and 40 CFR Part 63 (Section 63.1544), that the emptying of sweeping material is in compliance with all applicable local, state and federal requirements.

NN.14 ASARCO shall certify annually, consistent with the Lead Control Plan and 40 CFR Part 63 (Section 63.1544), that it has used only commercially available sanding material for deicing purposes, which has a Lead Content of 0.0148% or less.

Recordkeeping

NN.15 All test reports must be maintained on site and must be submitted to the Department in accordance with the Montana Source Test Protocol and Procedures Manual.

NN.16 ASARCO shall maintain on site all information relevant to operation and maintenance of all sweepers, the handling of (plant) sweepings, and the type/use of sanding material. The Information shall be submitted to the Department upon request.

Reporting

NN.17 The annual compliance certification report required by Section V.B must contain a certification statement for the above applicable requirements. The semiannual reporting shall provide a summary of results for all source testing performed within the reporting period, and a summary of all weekly visual survey results.

OO. EU074 - Unpaved Plant Areas and Roads within the ASARCO Facility (2A)

| Condition(s) | Pollutant / Parameter | Permit / SIP Limit | Compliance Method | Demonstration Frequency | Reporting Requirements |
|--------------------------------|-----------------------|---|---|--------------------------------------|------------------------|
| OO.1, OO.6, OO.7, OO.10, OO.12 | Opacity | 5% | Method 9 | As Required by the Dept. | Semi-annual |
| OO.2, OO.8, OO.10, OO.12 | Maintenance | ASARCO shall treat all unpaved portions of the In-plant haul roads and the general plant area and areas where unpaved traffic surfaces adjoin paved roads with water, chemical dust suppressant, and/or acceptable oil or asphalt products, as necessary to meet the 5% opacity limitation. | Visual Surveys and Lead Control Plan and 40 CFR Part 63 | Weekly | Semi-annual |
| OO.3, OO.8, OO.11, OO.12 | Water Lead Content | All water used on the roads must come from Upper Lake, or have a Lead Content less than or equal to that of Upper Lake. | Lead Control Plan and 40 CFR Part 63 | Lead Control Plan and 40 CFR Part 63 | Annual Certification |
| OO.4, OO.9, OO.11, OO.12 | Dust Suppressants | Use of any dust suppressants, shall be in compliance with all applicable local, state, and federal requirements. | Lead Control Plan and 40 CFR Part 63 | Lead Control Plan and 40 CFR Part 63 | Annual Certification |
| OO.5, OO.8, OO.10, OO.12 | Traffic | ASARCO shall limit traffic on unpaved roadways and parking areas to essential traffic. | Lead Control Plan and 40 CFR Part 63 | Lead Control Plan and 40 CFR Part 63 | Annual Certification |

Conditions

OO.1 ASARCO shall not cause or authorize visible emissions from unpaved plant areas and roads within the ASARCO facility that exceed 5% (Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000).

- OO.2 ASARCO shall treat all unpaved portions of the in-plant haul roads and the general plant area and areas where unpaved traffic surfaces adjoin paved roads with water, chemical dust suppressant, and/or acceptable oil or asphalt products, as necessary to meet the 5% opacity limitation (Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000).
- OO.3 All water used on the roads must come from Upper Lake, or have a Lead Content less than or equal to that of Upper Lake (Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000).
- OO.4 ASARCO shall use all dust suppressants, including any oil or asphalt products, in compliance with all applicable local, state, and federal requirements (Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000).
- OO.5 ASARCO shall limit traffic on unpaved roadways and parking areas to essential traffic (Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000).

Compliance Demonstration

- OO.6 As required by the Department, ASARCO shall perform a Method 9 test in accordance with the Lead Control Plan and the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106). Each observation period shall be a minimum of 6 minutes, unless any one reading is greater than the 5%; then the observation period shall be a minimum of 20 minutes or until a violation of the standard has been documented, whichever is a shorter period of time.
- OO.7 For the purpose of certification, ASARCO shall perform weekly visual surveys of the visible emissions from the unpaved plant areas and roads. Conducting a visual survey does not relieve ASARCO from the liability of a violation documented with a Method 9 test. The person conducting the visual survey does not have to be an EPA Method 9 certified observer; however, the individual must be familiar with the procedures of EPA Method 9, including the proper location from which to observe visible emissions.
- OO.8 ASARCO shall monitor compliance with requirement OO.2, OO.3, and OO.5 by satisfying the requirements of the Lead Control Plan and 40 CFR Part 63, Subpart TTT. For the purpose of certification, ASARCO shall perform weekly visual surveys to determine the need for maintenance and/or treatment of unpaved plant areas and roadways. If the visual survey indicates treatment is necessary, ASARCO shall initiate efforts to control or mitigate the emissions. ASARCO shall maintain a log of the maintenance and/or treatment performed on unpaved plant areas and roadways with water, chemical dust suppressant, and acceptable oil or asphalt products necessary to achieve the 5% opacity requirement.
- OO.9 ASARCO shall certify annually, consistent with the Lead Control Plan and 40 CFR Part 63, Subpart TTT, that all dust suppressants, including any oil or asphalt products, have been handled and applied in compliance with all applicable local, state, and federal requirements.

Recordkeeping

- OO.10 All test reports must be maintained on site and must be submitted to the Department in accordance with the Montana Source Test Protocol and Procedures Manual. A log of the weekly visual survey results shall be maintained on site and submitted to the Department upon request. The log shall include the date, time, observer's initials, and any corrective actions that have been taken.

OO.11 ASARCO shall maintain on site all information relevant to dust suppressants applied, including water lead content, such that compliance with OO.3 and OO.4 of this permit may be determined. The information shall be submitted to the Department upon request.

Reporting

OO.12 The annual compliance certification report required by Section V.B must contain a certification statement for the above applicable requirements. The semiannual reporting shall provide a summary of results for all source testing performed within the reporting period, and a summary of all weekly visual survey results.

PP. EU075 - Haul Trucks

| Condition(s) | Pollutant / Parameter | Permit / SIP Limit | Compliance Demonstration Method | Frequency | Reporting Requirements |
|------------------------|-----------------------|---|---|---|------------------------|
| PP.1, PP.2, PP.3, PP.4 | Haul Truck Clean-up | All haul trucks carrying lead-containing materials to and from the facility must pass over a grating system for the purpose of dislodging any materials that may be bonded to the truck bed, sidewalls and undercarriage. | Lead Control Plan and 40 CFR Part 63, Subpart TTT | Lead Control Plan and 40 CFR Part 63, Subpart TTT | Annual Certification |

Conditions

PP.1 ASARCO shall ensure that all haul trucks carrying lead-containing materials to and from the facility must pass over a grating system for the purpose of dislodging any materials that may be bonded to the truck bed, side walls and undercarriage (Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000).

Compliance Demonstration

PP.2 For the purpose of certification, ASARCO shall certify that all plant property entrances are equipped with grates.

Recordkeeping

PP.3 ASARCO shall maintain a copy of all certification statements on site. In addition, ASARCO shall maintain a log of all maintenance activities for the grating systems required.

Reporting

PP.4 The annual compliance certification report required by Section V.B must contain a certification statement for the above applicable requirements. The semiannual reporting shall provide a summary of results for all source testing performed within the reporting period.

QQ. EU076 - Wind Erosion (1A)

| Condition(s) | Pollutant / Parameter | Permit / SIP Limit | Compliance Demonstration Method | Frequency | Reporting Requirements |
|--------------------------------|---|---|---------------------------------|---|------------------------|
| QQ.1, QQ.8, QQ.9, QQ.13, QQ.16 | Opacity | 20% | Method 9 | As Required by the Dept. | Semi-annual |
| | | Reasonable Precautions | Visual Surveys | Weekly | Semi-annual |
| QQ.2, QQ.10, QQ.14, QQ.16 | Outdoor Storage of Material w/ Lead Content greater than 1% | Materials stored outdoors with a Lead Content greater than 1% (not including East Helena Sinter, East Helena Smelter Slag, East Helena Speiss/Matte, cast metal shapes, granulated furnace bullion, materials stored in permanent bunkers or bins, and materials which are stored in containers) shall be subject to this section's requirements. | Monitoring & Recordkeeping | Lead Control Plan and 40 CFR Part 63, Subpart TTT | Quarterly |

| Condition(s) | Pollutant / Parameter | Permit / SIP Limit | Compliance Method | Demonstration Frequency | Reporting Requirements |
|---------------------------|--|--|--------------------------------------|---|------------------------|
| QQ.3, QQ.12, QQ.15, QQ.16 | Storage Pile Orientation | Minimize disturbance by wind or plant equipment. | Lead Control Plan and 40 CFR Part 63 | Lead Control Plan and 40 CFR Part 63 | Annual Certification |
| QQ.4, QQ.11, QQ.13, QQ.16 | Chemical Treatment | Storage piles are to be chemically sealed with a suitable binder. Sealed piles which are broken into during plant operation are to be resealed as soon as practicable but no later than 24 hours after initial crust breaking, when weather permits. | Visual Survey | Lead Control Plan and 40 CFR Part 63, Subpart TTT | Semi-annual |
| QQ.5, QQ.12, QQ.15, QQ.16 | Storage Pile Segregation | Concrete dividers must be installed and maintained to separate all stored materials to minimize disturbance of the piles. | Lead Control Plan and 40 CFR Part 63 | Lead Control Plan and 40 CFR Part 63 Subpart TTT | Annual Certification |
| QQ.6, QQ.11, QQ.13, QQ.16 | Wind Screens | Wind Screens must be installed and maintained to minimize wind impacts on the storage piles. | Visual Survey | Lead Control Plan and 40 CFR Part 63 Subpart TTT | Semi-annual |
| QQ.7, QQ.11, QQ.13, QQ.16 | Excavation & Demolition Pile Exclusion | The excavation and demolition piles between the Upper and Lower Lakes shall be sealed as necessary to ensure that the fugitive emissions from these piles are minimized. | Visual Survey | Lead Control Plan and 40 CFR Part 63 Subpart TTT | Annual Certification |

Conditions

- QQ.1 ASARCO shall not cause or authorize the production, handling, transportation, or storage of any material unless reasonable precautions to control emissions of particulate matter are taken. Such emissions of airborne particulate matter from any stationary source shall not exhibit an opacity of 20% or greater averaged over 6 consecutive minutes, unless otherwise specified by rule or in this permit (ARM 17.8.308(1)).
- QQ.2 ASARCO shall subject all materials stored outdoors at the ASARCO East Helena Facility that have a lead content greater than 1% to the general storage requirements of section III (QQ.3 – QQ.6), consistent with the Lead Control Plan and CFR Part 63, Subpart TTT, excluding East Helena Sinter, East Helena Smelter Slag, East Helena Speiss/Matte, cast metal shapes, granulated furnace bullion, materials stored in permanent bunkers or bins, and materials that are stored in containers (Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000).
- QQ.3 ASARCO shall orient storage piles to minimize disturbance by wind or plant equipment (Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000).
- QQ.4 ASARCO shall chemically seal storage piles with a suitable binder. Sealed piles which are broken into during plant operation are to be resealed as soon as practicable, but no later than 24 hours after initial crust breaking, when weather permits (Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000).

- QQ.5 ASARCO shall install and maintain concrete dividers to separate all storage materials to minimize disturbance of the piles (Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000).
- QQ.6 ASARCO shall install and maintain wind screens to minimize wind impacts on the storage piles (Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000).
- QQ.7 ASARCO shall seal the excavation and demolition piles between the Upper and Lower Lakes as necessary to ensure that the fugitive emissions from these piles are minimized. The above requirements, except those requirements in QQ.2 and QQ.4, do not apply to these piles (Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000).

Compliance Demonstration

- QQ.8 As required by the Department, ASARCO shall perform a Method 9 test in accordance with Lead Control Plan and the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106). Each observation period shall be a minimum of 6 minutes, unless any one reading is greater than the 20%; then the observation period shall be a minimum of 20 minutes or until a violation of the standard has been documented, whichever is a shorter period of time.
- QQ.9 For the purpose of certification, ASARCO shall perform weekly visual surveys of the visible emissions from outdoor storage piles. Conducting a visual survey does not relieve ASARCO from the liability of a violation documented with a Method 9 test. The person conducting the visual survey does not have to be an EPA Method 9 certified observer; however, the individual must be familiar with the procedures of EPA Method 9, including the proper location from which to observe visible emissions.
- QQ.10 ASARCO shall determine the percent of lead content of materials stored outdoors consistent with Section 5 (G) of the Lead Control Plan; for materials with greater than 1% lead.
- QQ.11 ASARCO shall monitor compliance with requirement QQ.4, QQ.6, and QQ.7 by satisfying the requirements of the Lead Control Plan and 40 CFR Part 63, Subpart TTT. ASARCO shall perform weekly visual surveys of the outdoor storage piles to determine which require sealing (chemically sealed with a suitable binder), if wind screens are in service, and also if excavation and demolition piles require sealing.
- QQ.12 ASARCO shall monitor compliance with requirement QQ.3 and QQ.5 by satisfying the requirements of the Lead Control Plan and 40 CFR Part 63, Subpart TTT. ASARCO shall certify annually that it maintains the orientation of outdoor storage piles such that disturbances produced by wind or plant equipment are minimized; and that an adequate number of concrete dividers are installed and maintained to segregate materials and minimize disturbances to piles.

Recordkeeping

- QQ.13 All test reports must be maintained on site and must be submitted to the Department in accordance with the Montana Source Test Protocol and Procedures Manual. A log of all weekly visual survey results shall be maintained on site and submitted to the Department upon request. The log shall include the date, time, observer's initials, and any corrective actions that have been taken.

- QQ.14 ASARCO shall maintain on site all records of the lead content of materials stored outdoors; ASARCO shall maintain lead content, silt content, and moisture content for all materials with greater than 1% lead, consistent with the Lead Control Plan.
- QQ.15 ASARCO shall maintain on site all information relevant to Storage Pile Orientation and Storage Pile Segregation, consistent with the Lead Control Plan and 40 CFR Part 63, Subpart TTT, such that compliance with QQ.3 and QQ.5 of this permit may be determined. The Information shall be submitted to the Department upon request.

Reporting

- QQ.16 The annual compliance certification report required by Section V.B must contain a certification statement for the above applicable requirements. The semiannual reporting shall provide a summary of results for all source testing performed within the reporting period, and a summary of all weekly visual survey results. The quarterly reports shall satisfy the requirements of Section 9 of the Lead Control Plan: the lead content, the silt content, moisture content and tonnage of all dust materials handled outdoors.

RR. EU077 – EU080 HERO Water Treatment Plant

EU077 – Spray Dryer (& Baghouse) (22P)

EU079 – Load Out Ventilation Fan (22P)

EU078 – Dust Silo (& Bin Vent Baghouse) (22P)

EU080 – HERO Degassifier Vents

| Condition(s) | Pollutant / Parameter | Permit / SIP Limit | Compliance Demonstration | | Reporting Requirements |
|---------------------------------------|---|---|----------------------------------|-----------|------------------------|
| | | | Method | Frequency | |
| RR.1, RR.8, RR.9, RR.12, RR.13, RR.15 | Opacity | 20% | Method 9 | 2 Years | Semi-annual |
| | | | Normal Operation and Maintenance | Ongoing | Semi-annual |
| RR.2, RR.10, RR.12, RR.15 | Particulate Matter | 0.02 grains/dscf | Method 5 | 2 Years | Semi-annual |
| RR.3, RR.11, RR.14, RR.15 | HERO Treatment Plant Emission Control | Spray dryer, spray dryer baghouse, baghouse fan, bin vent baghouse, dust transfer system, dust storage silo, and a loadout ventilation fan. | Normal Operations | Ongoing | Annual Certification |
| RR.4, RR.9 RR.13, RR.15 | Spray Dryer Emission Control | Pulse-jet Baghouse | Normal Operation and Maintenance | Ongoing | Semi-annual |
| RR.5, RR.9 RR.13, RR.15 | Broken Bag Detection System | The spray dryer baghouse shall be equipped and operated with a fully functional broken bag detection system. | Normal Operation and Maintenance | Ongoing | Semi-annual |
| RR.6, RR.9 RR.11, RR.15 | Dust Storage Silo Emission Control | Bin Vent Baghouse discharging to inlet of Dryer Baghouse | Normal Operations | Ongoing | Semi-annual |
| RR.7, RR.9 RR.11, RR.15 | Emission Control During Dry Solids (Dust) transfer. | Loadout Ventilation Fan shall direct emissions during dust transfers to the inlet of the Spray Dryer Baghouse. | Normal Operations | Ongoing | Semi-annual |

Conditions

- RR.1 ASARCO shall not cause or authorize emissions to be discharged to the atmosphere from the HERO Water Treatment Plant Spray Dryer Baghouse Stack and the HERO Plant Degassifier Vent that exhibit an opacity of 20% or greater averaged over 6 consecutive minutes (ARM 17.8.304(2)).
- RR.2 ASARCO shall not cause or authorize emissions of particulate matter from the HERO Plant Spray Dryer Baghouse (22P) to be discharged to atmosphere that exceed 0.02 grains per dscf (ARM 17.8.715).
- RR.3 ASARCO shall ensure that the HERO Treatment Plant Emission Control System shall, at a minimum, consist of a spray dryer, spray dryer baghouse, baghouse fan, bin vent baghouse, dust transfer system, dust storage silo, and a loadout ventilation fan (ARM 17.8.710 & 715).
- RR.4 ASARCO shall control particulate emissions from the HERO Plant Spray Dryer with a pulse-jet baghouse (ARM 17.8.715).

- RR.5 ASARCO shall install, operate, and maintain a fully functional broken bag detection system for use with the HERO Plant Spray Dryer Baghouse (ARM 17.8.710).
- RR.6 ASARCO shall control particulate emissions from the HERO Plant Dust Storage Silo with the Bin Vent baghouse. Exhaust from the Bin Vent Baghouse shall be vented to the inlet of the Spray Dryer Baghouse (ARM 17.8.710).
- RR.7 ASARCO shall operate the Loadout Ventilation Fan at all times when dry solids are transferred from the HERO Dust Storage Silo into Truck(s). ASARCO shall direct the emissions captured by the Loadout Ventilation Fan to the inlet of the Spray Dryer Baghouse (ARM 17.8.710).

Compliance Demonstration

- RR.8 ASARCO shall perform a Method 9 test every 2 years in accordance with the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106). Each observation period shall be a minimum of 6 minutes, unless any one reading is greater than the relevant opacity limit (20%); then the observation period shall be a minimum of 20 minutes or until a violation of the standard has been documented, whichever is a shorter period of time.
- RR.9 ASARCO shall, on an ongoing basis, operate and maintain the Spray Dryer Baghouse. ASARCO shall certify ongoing normal operations on a semi-annual basis and record any maintenance activities conducted for these sources.
- RR.10 ASARCO shall perform a Method 5 test every 2 years to monitor compliance with RR.2, in accordance with the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106).
- RR.11 ASARCO shall certify annually that the HERO Treatment Plant Emission Control System requirement does consist minimally of a spray dryer, spray dryer baghouse, baghouse fan, bin vent baghouse, dust transfer system, dust storage silo, and a loadout ventilation fan.

Recordkeeping

- RR.12 All test reports must be maintained on site and must be submitted to the Department in accordance with the Montana Source Test Protocol and Procedures Manual.
- RR.13 ASARCO shall maintain on-site records of normal operation and any maintenance activities performed for this source.
- RR.14 ASARCO is not required to perform recordkeeping for requirements RR.3 or RR.11.

Reporting

- RR.15 The annual compliance certification report required by Section V.B must contain a certification statement for the above applicable requirements, the hours of operation for the HERO spray dryer system, and the gallons of feed water processed through the HERO degassifier vents. The semiannual reporting shall provide the results from any source tests performed, and a record of normal operation and any maintenance activities conducted for the HERO Spray Dryer Baghouse.

SS. EU81 - Printed Circuit Board Material (CBM) Processing

EU081 – Coreco Rotary Melting Furnace (16P)

EU082 – John Zink Thermal Oxidizer (16P)

EU046 – Blast Furnace Baghouse Dust Cleanout Baghouse (16P)

| Condition(s) | Pollutant / Parameter | Permit / SIP Limit | Compliance Demonstration | | Reporting Requirements |
|---|--|---|----------------------------|--------------------------|------------------------|
| | | | Method | Frequency | |
| SS.1, SS.11, SS.13, SS.18, SS.19, SS.23 | Opacity | 20% | Method 9 | As Required by the Dept. | Semi-annual |
| | | | Baghouse I&M | Baghouse I&M Program | Semi-annual |
| SS.2, SS.12, SS.18, SS.23 | Opacity | 20% | Visual Surveys | Weekly | Semi-annual |
| SS.3, SS.14, SS.20, SS.23 | Printer Circuit Board Material (CMB) Processed | CBM processed in the rotary melting furnace during any rolling 12-month period \leq 3800 tons | Monitoring & Recordkeeping | Ongoing | Semi-annual |
| SS.4, SS.15, SS.22, SS.23 | Emissions from the rotary melting furnace. | Emissions from the rotary melting furnace shall be incinerated by a thermal oxidation unit. | Normal Operations | Ongoing | Annual Certification |
| SS.5, SS.16, SS.21, SS.23 | Rotary Furnace Operation | CBM shall not be processed in the rotary melting furnace unless the thermal oxidation unit is operating at or above 1800 °F. | Monitoring & Recordkeeping | Ongoing | Annual Certification |
| SS.6, SS.16, SS.19, SS.21, SS.23 | Thermal Oxidation Unit Operation | The Thermal Oxidation Unit temperature, which must be \geq 1800°F, shall be measured and recorded on an ongoing basis. | Monitor and Record | Ongoing | Semi-annual |
| | | | Baghouse I&M Program | Baghouse I&M Program | |
| SS.7, SS.13, SS.15, SS.19, SS.23 | Emissions from the thermal oxidation unit. | Emissions from the thermal oxidation unit shall be vented to and controlled by the Blast Furnace Baghouse Dust Cleanout Baghouse. | Baghouse I&M Program | Baghouse I&M Program | Semi-annual |
| SS.8, SS.13, SS.19, SS.23 | Rotary Furnace Operation | The rotary melting furnace shall not be operated during those periods when dust unloading activities of the blast furnace baghouse require the use of the blast furnace baghouse dust cleanout baghouse. | Baghouse I&M Program | Baghouse I&M Program | Semi-annual |
| SS.9, SS.15, SS.22, SS.23 | Rotary Melting Furnace Outlet | The rotary melting furnace outlet shall be sealed with a water bath used to collect the product, and with ductwork used to collect and route air emission to the TOU & blast furnace baghouse dust cleanout baghouse. | Normal Operations | Ongoing | Annual Certification |

| Condition(s) | Pollutant / Parameter | Permit / SIP Limit | Compliance Demonstration Method | Frequency | Reporting Requirements |
|----------------------------|---|---|---|-----------|------------------------|
| SS.10, SS.17, SS.22, SS.23 | Inlet and Outlet Air Seals of the Rotary Melting Furnace. | The inlet and outlet of the rotary melting furnace shall be equipped with Department approved air seals; Within 60 days of the startup of the rotary melting furnace, Asarco shall develop and submit for approval an I&M plan for the air seals. | In accordance with Department approved I&M plan for furnace air seals | Ongoing | Annual Certification |

Conditions

- SS.1 ASARCO shall not cause or authorize emissions to be discharged to the atmosphere from the Blast Furnace Baghouse Dust Cleanout Baghouse, when the rotary melting furnace and thermal oxidizer are operating, that exhibit an opacity of 20% or greater averaged over 6 consecutive minutes (ARM 17.8.304(2)).
- SS.2 ASARCO shall not cause or authorize the production, handling, transportation, or storage of Printed Circuit Board Material unless reasonable precautions to control emissions of particulate matter are taken. Such emissions of airborne particulate matter from any stationary source shall not exhibit an opacity of 20% or greater averaged over 6 consecutive minutes, unless otherwise specified by rule or in this permit (ARM 17.8.308(1)).
- SS.3 ASARCO shall not process more than 3800 tons of Printed Circuit Board Material (CBM) in the rotary melting furnace during any rolling 12-month period (ARM 17.8.710 & MCA 75-2-215).
- SS.4 ASARCO shall incinerate the emissions from the rotary melting furnace using the thermal oxidation unit (ARM 17.8.715).
- SS.5 ASARCO shall not process CBM in the rotary melting furnace unless the thermal oxidation unit is operating at or above 1800 °F; ASARCO shall maintain the Thermal Oxidation Unit (TOU) temperature at or above 1800°F whenever the rotary melter is processing CBM (ARM 17.8.710).
- SS.6 ASARCO shall, on an ongoing basis, monitor and record the temperature of the TOU; the thermal oxidation unit temperature shall be monitored at the exhaust point, or another Department approved location (ARM 17.8.710).
- SS.7 ASARCO shall direct the exhaust (emissions) from the thermal oxidation unit to the inlet of the Blast Furnace Baghouse Dust Cleanout Baghouse; ASARCO shall control TOU particulate emissions with the Blast Furnace Baghouse Dust Cleanout Baghouse, and subsequently vent controlled emissions to the Blast Furnace Stack (ARM 17.8.715).
- SS.8 ASARCO shall not operate the rotary melting furnace during those periods when dust handling activities of the blast furnace baghouse require the use of the blast furnace baghouse dust cleanout baghouse (ARM 17.8.710).
- SS.9 ASARCO shall seal the outlet of the rotary melting furnace with a water bath to be used for collection of the product, and with ductwork to direct the air emissions to the TOU (ARM 17.8.710).

- SS.10 ASARCO shall operate Department approved inlet and outlet air seals on the rotary melting furnace; Asarco shall develop and submit for approval an I&M plan for the air seals (within 60 days of the startup of the rotary melting furnace) (ARM 17.8.710).

Compliance Demonstration

- SS.11 As required by the Department, ASARCO shall perform a Method 9 test in accordance with the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106). Each observation period shall be a minimum of 6 minutes, unless any one reading is greater than the relevant opacity limit (20%); then the observation period shall be a minimum of 20 minutes or until a violation of the standard has been documented, whichever is a shorter period of time.
- SS.12 For the purpose of certification, ASARCO shall perform weekly visual surveys of the visible emissions from the CBM handling operation. Conducting a visual survey does not relieve ASARCO from the liability of a violation documented with a Method 9 test. The person conducting the visual survey does not have to be an EPA Method 9 certified observer; however, the individual must be familiar with the procedures of EPA Method 9, including the proper location from which to observe visible emissions. If excessive fugitive emissions are identified, ASARCO shall initiate efforts to minimize or curtail the emissions.
- SS.13 ASARCO shall, on an ongoing basis, operate and maintain the Blast Furnace Baghouse Dust Cleanout Baghouse in accordance with the Baghouse Inspection and Maintenance Program.
- SS.14 ASARCO shall, on an ongoing basis, monitor and record the quantity of Printed Circuit Board Material (CBM) processed in the rotary furnace such that they can monitor compliance with the production limit of SS.4.
- SS.15 Normal operations shall be characterized as the compliance demonstration for requirements SS.5, SS.7, and SS.9.
- SS.16 ASARCO shall, on an ongoing basis, monitor and record the temperature of the TOU to monitor compliance with SS.6 and SS.7.
- SS.17 ASARCO shall monitor compliance with SS.10 by operating the furnace with Department approved air seals consistent with the Air Seal I&M plan submitted to the Department for approval.

Recordkeeping

- SS.18 All test reports must be maintained on site and must be submitted to the Department in accordance with the Montana Source Test Protocol and Procedures Manual. A log of the weekly visual survey results shall be maintained on site and submitted to the Department upon request.
- SS.19 ASARCO shall maintain on-site records of all inspection and maintenance activities performed in accordance with Baghouse Inspection and Maintenance Program.
- SS.20 ASARCO shall maintain on-site records of the quantity of Printed Circuit Board Material (CBM) processed in the rotary furnace each month. ASARCO shall total the amount of CBM by the 25th of each month to determine/verify compliance with SS.3. Records shall be submitted to the Department upon request.
- SS.21 ASARCO shall record and maintain on site the operating temperatures of the TOU. Records shall be submitted to the Department upon request.

SS.22 ASARCO shall maintain on-site records of all appropriate information necessary to certify compliance with SS.4, SS.9, and SS.10. Records shall be submitted to the Department upon request.

Reporting

SS.23 The annual compliance certification report required by Section V.B must contain a certification statement for the above applicable requirements. The semiannual reporting shall provide the results of any tests performed, all weekly visual survey results, the rolling 12-month average of CBM processed for the reporting period, and any corrective actions taken as a result of the inspections and maintenance required by the Baghouse Inspection and Maintenance Program.

TT.EU083 - Gasoline Storage Tank(s)

| Condition(s) | Pollutant/Parameter | Permit / SIP Limit | Compliance Demonstration Method Frequency | | Reporting Requirements |
|---------------------------|---------------------|--|--|-----------------------------|---------------------------|
| TT.1, TT.3, TT.5, TT.6 | Opacity | 20% | Method 9 | As Required by the Dept. | Semi-annual |
| TT.2, TT.4, TT.5, TT.6 | Tanks | Pressure Tank or Vapor Loss Control Device | Annual Certification | Semi-annual | Semi-annual |

Conditions

TT.1 ASARCO shall not cause or authorize emissions to be discharged to the atmosphere from any gasoline storage tank that exhibit an opacity of 20% or greater averaged over 6 consecutive minutes (ARM 17.8.304(2)).

TT.2 ASARCO shall not load or permit the loading of gasoline into any stationary tank with a capacity of 250 gallons or more from any tank truck or trailer, except through a permanent submerged fill pipe, unless such tank is equipped with a vapor loss control device or is a pressure tank as described in ARM 17.8.324(1) (ARM 17.8.324(3)).

Compliance Demonstration

TT.3 As required by the Department, ASARCO shall perform a Method 9 test in accordance with the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106). Each observation period shall be a minimum of 6 minutes, unless any one reading is greater than 20% opacity; then the observation period shall be a minimum of 20 minutes or until a violation of the standard has been documented, whichever is a shorter period of time.

TT.4 ASARCO shall certify that the tanks are pressure tanks, equipped with vapor loss control devices, or loaded using a submerged fill pipe.

Recordkeeping

TT.5 All test reports shall be maintained on site and submitted to the Department in accordance with the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106).

Reporting

TT.6 The annual compliance certification report required by Section V.B must contain a certification statement for the above applicable requirements. The semi-annual reporting shall provide a summary of the results from any source testing that was performed.

LEAD SIP ONLY CONDITIONS

UU.EU084 - EAST HELENA PAVED ROAD DUST CONTROL PLAN

| Condition(s) | Pollutant / Parameter | Permit / SIP Limit | Compliance Method | Demonstration Frequency | Reporting Requirements |
|----------------------------------|--|---|-------------------|-------------------------|------------------------|
| UU.1, UU.9, UU.13, UU.16 | Attachment #1, (Lead Control Plan) | ASARCO shall comply with all of the requirements in Attachment 1 (Lead Control Plan) "Sampling and Analysis of Paved Road Dust Samples in East Helena, May, 1995" | Lead Control Plan | Lead Control Plan | Annual Certification |
| UU.2, UU.9, UU.13, UU.16 | Attachment #3, (Lead Control Plan) | ASARCO shall comply with all of the requirements in Attachment 3, (Lead Control Plan), "East Helena Lead SIP Road Dust Control Analytical Quality Assurance Plan, May 1995" | Lead Control Plan | Lead Control Plan | Annual Certification |
| UU.3, UU.9, UU.13, UU.16 | Section 3(D), Lead Control Plan | ASARCO shall comply with all requirements of Section 3(D), Lead Control Plan, "East Helena Paved Road Dust Control Requirements" | Lead Control Plan | Lead Control Plan | Annual Certification |
| UU.4, UU.10, UU.13, UU.16 | Areas A & B Quarterly Average Lead Loading | ASARCO shall clean the paved public streets and roads in Areas A & B as necessary to limit the Quarterly Average Lead Loading of the silt portion of road dust samples taken in those areas to less than 0.05 grains of lead per square foot of paved street surface. | Lead Control Plan | Monthly | Quarterly |
| UU.5, UU.10, UU.13, UU.16 | Area C Quarterly Average Lead Loading | ASARCO shall clean the paved public streets and roads in Area C as necessary to limit the Quarterly Average Lead Loading of the silt portion of road dust samples taken in those areas to less than 0.074 grains of lead per square foot of paved street surface. | Lead Control Plan | Monthly | Quarterly |
| UU.6, UU.11, UU.13, UU.15, UU.16 | Street Sampling | ASARCO shall perform street sampling in accordance with Section 3, (D)(5) of the Lead Control Plan, and Attachments 1 and 3 of the Lead Control Plan, to determine the Quarterly Average Lead Loading | Lead Control Plan | Monthly | Quarterly |
| UU.7, UU.11, UU.13, UU.14, UU.16 | Sample Analysis | ASARCO shall analyze each road dust sample in accordance with Attachment #3, Lead Control Plan | Lead Control Plan | Monthly | Quarterly |
| UU.8, UU.12, UU.13, UU.14, UU.16 | Calculation and Reporting of Lead Loadings | ASARCO shall calculate and report the lead loadings in accordance with Section 3(D)(5)(d-f) | Lead Control Plan | Monthly | Quarterly |

Conditions

- UU.1 ASARCO shall comply with all of the requirements in Attachment 1 “Sampling and Analysis of Paved Road Dust Samples in East Helena, May, 1995” (Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000).
- UU.2 ASARCO shall comply with all of the requirements in Attachment 3 “East Helena Lead SIP Road Dust Control Analytical Quality Assurance Plan, May 1995” (Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000).
- UU.3 ASARCO shall comply with all requirements of Section 3(D) “East Helena Paved Road Dust Control Requirements” (Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000).
- UU.4 ASARCO shall clean the paved public streets and roads in Areas A and B as necessary to limit the quarterly average lead loading of the silt portion of road dust samples taken in those areas to less than 0.05 grains of lead per square foot of paved street surface (Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000).
- UU.5 ASARCO shall clean the paved public streets and roads in Area C as necessary to limit the quarterly average lead loading of the silt portion of road dust samples taken in those areas to less than 0.074 grains of lead per square foot of paved street surface (Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000).
- UU.6 ASARCO shall perform street sampling in accordance with Section 3, (D)(5) and Attachments 1 and 3 to determine the quarterly average lead loading (Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000).
- UU.7 ASARCO shall analyze each road dust sample in accordance with Attachment #3 (Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000).
- UU.8 ASARCO shall calculate and report the lead loadings in accordance with Section 3(D)(5)(d-f) (Lead NAAQS - BER Orders - August 4, 1995; April 12, 1996; June 21, 1996; August 28, 1998; September 15, 2000).

Compliance Demonstration

- UU.9 ASARCO shall certify annually that they are in compliance with the requirements of UU.1, UU.2, and UU.3.
- UU.10 ASARCO shall clean the paved streets and roads in Areas A, B, and C as necessary to satisfy the Quarterly Average Lead Loadings of UU.4 and UU.5; ASARCO shall sample and analyze paved road dust samples, in accordance with the Lead Control Plan, to monitor compliance with the quarterly average lead loadings of UU.4 and UU.5.
- UU.11 ASARCO shall monitor compliance with UU.6 and UU.7 by reporting the required sampling and analysis data to the Department in accordance with the Lead Control Plan.
- UU.12 ASARCO shall monitor compliance with UU.8 by reporting calculations and average lead loading results for each area sampled to the Department in accordance with the Lead Control Plan.

Recordkeeping

UU.13 ASARCO shall maintain all information necessary to monitor compliance with Section 3(D) and Attachments #1 and #3 of the Lead Control Plan.

UU.14 ASARCO shall maintain all raw sampling and analysis data, as well as calculations. Records shall be submitted to the Department upon request.

UU.15 ASARCO shall archive all samples collected for analysis and reporting for at least 6 months.

Reporting

UU.16 The annual compliance certification report required by Section V.B must contain a certification statement for the above applicable requirements. The quarterly reporting shall provide

- a. Lead Loadings as defined by Equation 4, Section 3(D)(2)(b) of the Lead Control Plan;
- b. Dates and Times of sampling, for all individual samples obtained in all valid areas;
- c. The specific places where the individual samples were obtained;
- d. The monthly average lead values for each area as defined by Equation 5;
- e. The quarterly average lead values for each area as defined by Equation 6; and
- f. Any other requested information (as defined in Attachment #3).

SECTION IV. NON-APPLICABLE REQUIREMENTS

Air Quality Administrative Rules of Montana (ARM) and Federal Regulations identified as not applicable to the facility or to a specific emission unit at the time of the permit issuance are listed below [ARM 17.8.1214]. The following list does not preclude the need to comply with any new requirements that may become applicable during the permit term.

A. Facility-Wide

The following table contains non-applicable requirements that are administrated by the Air and Waste Management Bureau of the Department of Environmental Quality.

| Rule Citation | | Reason |
|--|--|---|
| State | Federal | |
| ARM 17.8.321, ARM 17.8.323, and ARM 17.8.610 | | These rules are not applicable because the facility is not listed in the source category cited in the rules. |
| ARM 17.8.324(4)-(6) | | These rules are not applicable because the facility does not have the specific emission unit cited in the rules. |
| | 40 CFR 60, Subparts C, Ca, Cb 40 CFR 60, Subparts D, Da, Db, Dc 40 CFR 60, Subparts E-J 40 CFR 60, Subparts K, Ka, Kb 40 CFR 60, Subparts L-Q 40 CFR 60, Subparts S-Z 40 CFR 60, Subparts AA-EE 40 CFR 60, Subparts GG-HH 40 CFR 60, Subparts KK-NN 40 CFR 60, Subparts PP-XX 40 CFR 60, Subparts AAA-BBB 40 CFR 60, Subparts DDD 40 CFR 60, Subparts FFF-LLL 40 CFR 60, Subparts NNN-VVV 40 CFR 61, Subparts B-F 40 CFR 61, Subparts H-L 40 CFR 61, Subparts N-R 40 CFR 61, Subpart T 40 CFR 61, Subparts V-W 40 CFR 61, Subpart Y 40 CFR 61, Subpart BB 40 CFR 61, Subpart FF | These requirements are not applicable because the facility is not an affected source as defined in these regulations. |
| | 40 CFR 63, Subpart B 40 CFR 63, Subparts F-I 40 CFR 63, Subparts L-M 40 CFR 63, Subpart Q 40 CFR 63, Subpart T 40 CFR 63, Subpart X 40 CFR 82, Subparts A-E 40 CFR 82, Subparts G-H | These requirements are not applicable because the facility is not an affected source as defined in these regulations. |
| | 40 CFR 72, through 40 CFR 78. | These requirements are not applicable because the facility is not an affected source as defined by the acid rain regulations. |
| | 40 CFR 68 | This rule is not applicable because the facility does not meet the threshold quantity for any regulated substance. |

B. Emission Units

The permit application identified applicable requirements: non-applicable requirements for individual or specific emission units were not listed. The Department has listed all non-applicable requirements in Section IV.A, these requirements relate to each specific unit as well as facility wide.

SECTION V. GENERAL PERMIT CONDITIONS

A. COMPLIANCE REQUIREMENTS

ARM 17.8, Subchapter 12, Operating Permit Program §1210(2)(a)-(c)&(e), §1206(6)(c)&(b)

1. The permittee must comply with all conditions of the permit. Any noncompliance with the terms or conditions of the permit constitutes a violation of the Montana Clean Air Act, and may result in enforcement action, permit modification, revocation and reissuance, or termination, or denial of a permit renewal application under ARM Title 17, Chapter 8, Subchapter 12.
2. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition.
3. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of the permit. If appropriate, this factor may be considered as a mitigating factor in assessing a penalty for noncompliance with an applicable requirement if the source demonstrates that both the health, safety or environmental impacts of halting or reducing operations would be more serious than the impacts of continuing operations, and that such health, safety or environmental impacts were unforeseeable and could not have otherwise been avoided.
4. The permittee shall furnish to the Department, within a reasonable time set by the Department (not to be less than 15 days), any information that the Department may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit, or to determine compliance with the permit. Upon request, the permittee shall also furnish to the Department copies of those records that are required to be kept pursuant to the terms of the permit. This subsection does not impair or otherwise limit the right of the permittee to assert the confidentiality of the information requested by the Department, as provided in 75-2-105, MCA.
5. Any schedule of compliance for applicable requirements with which the source is not in compliance with at the time of permit issuance shall be supplemental to, and shall not sanction noncompliance with, the applicable requirements on which it was based.
6. For applicable requirements that will become effective during the permit term, the source shall meet such requirements on a timely basis unless a more detailed plan or schedule is required by the applicable requirement or the Department.

B. CERTIFICATION REQUIREMENTS

ARM 17.8, Subchapter 12, Operating Permit Program, §1207 and §1213(7)(a)&(c)-(d)

1. Any application form, report, or compliance certification submitted pursuant to ARM Title 17, Chapter 8, Subchapter 12, shall contain certification by a responsible official of truth, accuracy and completeness. This certification and any other certification required under ARM Title 17, Chapter 8, Subchapter 12, shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate and complete.
2. Compliance certifications shall be submitted by January 31st of each year, or more frequently if otherwise specified in an applicable requirement or elsewhere in the permit. Each certification must include the required information for the previous calendar year (i.e., January 1 – December 31).

3. Compliance certifications shall include the following:
 - a. The identification of each term or condition of the permit that is the basis of the certification;
 - b. The identification of the method(s) or other means used by the owner or operator for determining the status of compliance with each term or condition during the certification period, consistent with ARM 17.8.1212;
 - c. The status of compliance with the terms and conditions of the permit for the period covered by the certification, *including whether compliance during the period was continuous or intermittent*, (based on the method or means designated in ARM 17.8.1213(7)(c)(ii), as described above); and
 - d. Such other facts as the department may require to determine the compliance status of the source.
4. All compliance certifications must be submitted to the Environmental Protection Agency, as well as to the Department, at the addresses listed in the Notification Addresses Appendix of this permit.

C. PERMIT SHIELD

ARM 17.8, Subchapter 12, Operating Permit Program §1214(1)-(4)

1. The applicable requirements and non-federally enforceable requirements are included and specifically identified in this permit and the permit includes a precise summary of the requirements not applicable to the source. Compliance with the conditions of the permit shall be deemed compliance with any applicable requirements and any non-federally enforceable requirements as of the date of permit issuance.
2. The permit shield described in 1 above shall remain in effect during the appeal of any permit action (renewal, revision, reopening, or revocation and reissuance) to the Board of Environmental Review (Board), until such time as the Board renders its final decision.
3. Nothing in this permit alters or affects the following:
 - a. The provisions of Sec. 7603 of the FCAA, including the authority of the administrator under that section;
 - b. The liability of an owner or operator of a source for any violation of applicable requirements prior to or at the time of permit issuance;
 - c. The applicable requirements of the Acid Rain Program, consistent with Sec. 7651g(a) of the FCAA;
 - d. The ability of the administrator to obtain information from a source pursuant to Sec. 7414 of the FCAA;
 - e. The ability of the Department to obtain information from a source pursuant to the Montana Clean Air Act, Title 75, Chapter 2, MCA;
 - f. The emergency powers of the Department under the Montana Clean Air Act, Title 75, Chapter 2, MCA; and

- g. The ability of the Department to establish or revise requirements for the use of Reasonably Available Control Technology (RACT) as defined in ARM Title 17, Chapter 8. However, if the inclusion of a RACT into the permit pursuant to ARM Title 17, Chapter 8, Subchapter 12, is appealed to the Board, the permit shield, as it applies to the source's existing permit, shall remain in effect until such time as the Board has rendered its final decision.
- 4. Nothing in this permit alters or affects the ability of the Department to take enforcement action for a violation of an applicable requirement or permit term demonstrated pursuant to ARM 17.8.106, Source Testing Protocol.
- 5. Pursuant to ARM 17.8.132, for the purpose of submitting a compliance certification, nothing in these rules shall preclude the use, including the exclusive use, of any credible evidence or information relevant to whether a source would have been in compliance. However, when compliance or noncompliance is demonstrated by a test or procedure provided by permit or other applicable requirements, the source shall then be presumed to be in compliance or noncompliance unless that presumption is overcome by other relevant credible evidence.
- 6. The permit shield will not extend to minor permit modifications or changes not requiring a permit revision (see Sections I & J).
- 7. The permit shield will extend to significant permit modifications and transfer or assignment of ownership (see Sections K & N).

D. MONITORING, RECORDKEEPING, AND REPORTING REQUIREMENTS

ARM 17.8, Subchapter 12, operating Permit Program §1212(2)&(3)

- 1. Unless otherwise provided in this permit, the permittee shall maintain compliance monitoring records that include the following information:
 - a. The date, place as defined in the permit, and time of sampling or measurement;
 - b. The date(s) analyses were performed;
 - c. The company or entity that performed the analyses;
 - d. The analytical techniques or methods used;
 - e. The results of such analyses; and
 - f. The operating conditions at the time of sampling or measurement.
- 2. The permittee shall retain records of all required monitoring data and support information for a period of at least 5 years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the permit. All monitoring data, support information, and required reports and summaries may be maintained in computerized form at the plant site if the information is made available to Department personnel upon request, which may be for either hard copies or computerized format. Strip-charts must be maintained in their original form at the plant site and shall be made available to Department personnel upon request.

3. The permittee shall submit to the Department, at the addresses located in the Notification Addresses Appendix of this permit, reports of any required monitoring by January 31st and July 31st of each year, or more frequently if otherwise specified in an applicable requirement or elsewhere in the permit. The monitoring report submitted on January 31st of each year must include the required monitoring information for the period of July 1 through December 31 of the previous year. The monitoring report submitted on July 31st of each year must include the required monitoring information for the period of January 1 through June 30 of the current year. All instances of deviations from the permit requirements must be clearly identified in such reports. All required reports must be certified by a responsible official, consistent with ARM 17.8.1207.

E. PROMPT DEVIATION REPORTING

ARM 17.8, Subchapter 12, Operating Permit Program §1212(3)(c)

The permittee shall promptly report deviations from permit requirements, including those attributable to upset conditions as defined in the permit, the probable cause of such deviations, and any corrective actions or preventive measures taken. To be considered prompt, deviations shall be reported as part of the routine reporting requirements under ARM 17.8.1212(3)(b) and, if applicable, in accordance with the malfunction reporting requirements under ARM 17.8.110, unless otherwise specified in an applicable requirement.

F. EMERGENCY PROVISIONS

ARM 17.8, Subchapter 12, Operating Permit Program §1201(13) and §1214(5), (6)&(8)

1. An “emergency” means any situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, which situation requires immediate corrective action to restore normal operation and causes the source to exceed a technology-based emission limitation under this permit due to the unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of reasonable preventive maintenance, careless or improper operation, or operator error.
2. An emergency constitutes an affirmative defense to an action brought for noncompliance with a technology-based emission limitation if the permittee demonstrates through properly signed, contemporaneous logs, or other relevant evidence, that:
 - a. An emergency occurred and the permittee can identify the cause(s) of the emergency;
 - b. The permitted facility was at the time being properly operated;
 - c. During the period of the emergency the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in the permit; and
 - d. The permittee submitted notice of the emergency to the Department within 2 working days of the time when emission limitations were exceeded due to the emergency. This notice fulfills the requirements of ARM 17.8.1212(3)(c). This notice must contain a description of the emergency, any steps taken to mitigate emissions, and corrective actions taken.
3. These emergency provisions are in addition to any emergency, malfunction or upset provision contained in any applicable requirement.

G. INSPECTION AND ENTRY

ARM 17.8, Subchapter 12, Operating Permit Program §1213(3)&(4)

1. Upon presentation of credentials and other requirements as may be required by law, the permittee shall allow the Department, the administrator, or an authorized representative (including an authorized contractor acting as a representative of the Department or the administrator) to perform the following:
 - a. Enter the premises where a source required to obtain a permit is located or emission-related activity is conducted, or where records must be kept under the conditions of the permit;
 - b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit;
 - c. Inspect at reasonable times any facilities, emission units, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit; and
 - d. As authorized by the Montana Clean Air Act and rules promulgated thereunder, sample or monitor, at reasonable times, any substances or parameters at any location for the purpose of assuring compliance with the permit or applicable requirements.
2. The permittee shall inform the inspector of all workplace safety rules or requirements at the time of inspection. This section shall not limit in any manner the Department's statutory right of entry and inspection as provided for in 75-2-403, MCA.

H. FEE PAYMENT

ARM 17.8, Subchapter 12, Operating Permit Program §1210(2)(f) and ARM 17.8, Subchapter 5, Air Quality Permit Application, Operation, and Open Burning Fees §505(3)-(5) (STATE ONLY)

1. The permittee must pay application and operating fees, pursuant to ARM Title 17, Chapter 8, Subchapter 5.
2. Annually, the Department shall provide the permittee with written notice of the amount of the fee and the basis for the fee assessment. The air quality operation fee is due 30 days after receipt of the notice, unless the fee assessment is appealed pursuant to ARM 17.8.511. If any portion of the fee is not appealed, that portion of the fee that is not appealed is due 30 days after receipt of the notice. Any remaining fee, which may be due after the completion of an appeal, is due immediately upon issuance of the Board's decision or upon completion of any judicial review of the Board's decision.
3. If the permittee fails to pay the required fee (or any required portion of an appealed fee) within 90 days of the due date of the fee, the Department may impose an additional assessment of 15% of the fee (or any required portion of an appealed fee) or \$100, whichever is greater, plus interest on the fee (or any required portion of an appealed fee), computed at the interest rate established under 15-31-510(3), MCA.

I. MINOR PERMIT MODIFICATIONS

ARM 17.8, Subchapter 12, Operating Permit Program §1226(3)&(11)

1. An application for a minor permit modification need only address in detail those portions of the permit application that require revision, updating, supplementation, or deletion, and may reference any required information that has been previously submitted.

2. The permit shield under ARM 17.8.1214 will not extend to any minor modifications processed pursuant to ARM 17.8.1226.

J. CHANGES NOT REQUIRING PERMIT REVISION

ARM 17.8, Subchapter 12, Operating Permit Program §1224(1)-(3), (5)&(6)

1. The permittee is authorized to make changes within the facility as described below, provided the following conditions are met:
 - a. The proposed changes do not require the permittee to obtain an air quality preconstruction permit under ARM Title 17, Chapter 8, Subchapter 7;
 - b. The proposed changes are not modifications under Title I of the FCAA, or as defined in ARM Title 17, Chapter 8, Subchapters 8, 9, or 10;
 - c. The emissions resulting from the proposed changes do not exceed the emissions allowable under this permit, whether expressed as a rate of emissions or in total emissions;
 - d. The proposed changes do not alter permit terms that are necessary to enforce applicable emission limitations on emission units covered by the permit; and
 - e. The facility provides the administrator and the Department with written notification at least 7 days prior to making the proposed changes.
2. The permittee and the Department shall attach each notice provided pursuant to 1.e above to their respective copies of this permit.
3. Pursuant to the conditions above, the permittee is authorized to make Section 502(b)(10) changes, as defined in ARM 17.8.1201(30), without a permit revision. For each such change, the written notification required under 1.e above shall include a description of the change within the source, the date on which the change will occur, any change in emissions, and any permit term or condition that is no longer applicable as a result of the change.
4. The permittee may make a change not specifically addressed or prohibited by the permit terms and conditions without requiring a permit revision, provided the following conditions are met.
 - a. Each proposed change does not weaken the enforceability of any existing permit conditions;
 - b. The Department has not objected to such change;
 - c. Each proposed change meets all applicable requirements and does not violate any existing permit term or condition; and
 - d. The permittee provides contemporaneous written notice to the Department and the administrator of each change that is above the level for insignificant emission units as defined in ARM 17.8.1201(22) and 17.8.1206(3), and the written notice describes each such change, including the date of the change, any change in emissions, pollutants emitted, and any applicable requirement that would apply as a result of the change.
5. The permit shield authorized by ARM 17.8.1214 shall not apply to changes made pursuant to ARM 17.8.1224(3) and (5), but is applicable to terms and conditions that allow for increases and decreases in emissions pursuant to ARM 17.8.1224(4).

K. SIGNIFICANT PERMIT MODIFICATIONS

ARM 17.8, Subchapter 12, Operating Permit Program §1227(1), (3)&(4)

1. The modification procedures set forth in 2 below must be used for any application requesting a significant modification of this permit. Significant modifications include the following:
 - a. Any permit modification that does not qualify as either a minor modification or as an administrative permit amendment;
 - b. Every significant change in existing permit monitoring terms or conditions;
 - c. Every relaxation of permit reporting or recordkeeping terms or conditions that limit the Department's ability to determine compliance with any applicable rule, consistent with the requirements of the rule; or
 - d. Any other change determined by the Department to be significant.
2. Significant modifications shall meet all requirements of ARM Title 17, Chapter 8, including those for applications, public participation, and review by affected states and the administrator, as they apply to permit issuance and renewal, except that an application for a significant permit modification need only address in detail those portions of the permit application that require revision, updating, supplementation or deletion.
3. The permit shield provided for in ARM 17.8.1214 shall extend to significant modifications.

L. REOPENING FOR CAUSE

ARM 17.8, Subchapter 12, Operating Permit Program §1228(1)&(2)

1. This permit may be reopened and revised under the following circumstances.
 - a. Additional applicable requirements under the FCAA become applicable to the facility when the permit has a remaining term of 3 or more years. Reopening and revision of the permit shall be completed not later than 18 months after promulgation of the applicable requirement. No reopening is required under ARM 17.8.1228(1)(a) if the effective date of the applicable requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms or conditions have been extended pursuant to ARM 17.8.1220(12) or 17.8.1221(2);
 - b. Additional requirements (including excess emission requirements) become applicable to an affected source under the Acid Rain Program. Upon approval by the administrator, excess emission offset plans shall be deemed incorporated into the permit;
 - c. The Department or the administrator determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emission standards or other terms or conditions of the permit; or
 - d. The administrator or the Department determines that the permit must be revised or revoked and reissued to ensure compliance with the applicable requirements.

M. PERMIT EXPIRATION AND RENEWAL

ARM 17.8, Subchapter 12, Operating Permit Program §1210(2)(g), §1220(11)&(12), and §1205(2)(d)

1. This permit is issued for a fixed term of 5 years.

2. Renewal of this permit is subject to the same procedural requirements that apply to permit issuance, including those for application, content, public participation, and affected state and administrator review.
3. Expiration of this permit terminates the permittee's right to operate unless a timely and administratively complete renewal application has been submitted consistent with ARM 17.8.1221 and 17.8.1205(2)(d). If a timely and administratively complete application has been submitted, all terms and conditions of the permit, including the application shield, remain in effect after the permit expires until the permit renewal has been issued or denied.
4. For renewal, the permittee shall submit a complete air quality operating permit application to the Department not later than 6 months prior to the expiration of this permit, unless otherwise specified. If necessary to ensure that the terms of the existing permit will not lapse before renewal, the Department may specify, in writing to the permittee, a longer time period for submission of the renewal application. Such written notification must be provided at least 1 year before the renewal application due date established in the existing permit.

N. SEVERABILITY CLAUSE

ARM 17.8, Subchapter 12, Operating Permit Program §1210(2)(i)&(l)

1. The administrative appeal or subsequent judicial review of the issuance by the Department of an initial permit under this subchapter shall not impair in any manner the underlying applicability of all applicable requirements, and such requirements continue to apply as if a final permit decision had not been reached by the Department.
2. If any provision of a permit is found to be invalid, all valid parts that are severable from the invalid part remain in effect. If a provision of a permit is invalid in one or more of its applications, the provision remains in effect in all valid applications that are severable from the invalid applications.

O. TRANSFER OR ASSIGNMENT OF OWNERSHIP

ARM 17.8, Subchapter 12, Operating Permit Program §1225(2)&(4)

1. If an administrative permit amendment involves a change in ownership or operational control, the applicant must include in its request to the Department a written agreement containing a specific date for the transfer of permit responsibility, coverage and liability between the current and new permittee.
2. The permit shield provided for in ARM 17.8.1214 shall not extend to administrative permit amendments.

P. EMISSIONS TRADING, MARKETABLE PERMITS, ECONOMIC INCENTIVES

ARM 17.8, Subchapter 12, Operating Permit Program §1226(2)

Notwithstanding ARM 17.8.1226(1) and (7), minor air quality operating permit modification procedures may be used for permit modifications involving the use of economic incentives, marketable permits, emissions trading, and other similar approaches, to the extent that such minor permit modification procedures are explicitly provided for in the Montana State Implementation Plan or in applicable requirements promulgated by the administrator.

Q. NO PROPERTY RIGHTS CONVEYED

ARM 17.8, Subchapter 12, Operating Permit Program §1210(2)(d)

This permit does not convey any property rights of any sort, or any exclusive privilege.

R. TESTING REQUIREMENTS

ARM 17.8, Subchapter 1, General Provisions §105

The permittee shall comply with ARM 17.8.105.

S. SOURCE TESTING PROTOCOL

ARM 17.8, Subchapter 1, General Provisions §106

The permittee shall comply with ARM 17.8.106.

T. MALFUNCTIONS

ARM 17.8, Subchapter 1, General Provisions §110

The permittee shall comply with ARM 17.8.110.

U. CIRCUMVENTION

ARM 17.8, Subchapter 1, General Provisions §111

The permittee shall comply with ARM 17.8.111.

V. MOTOR VEHICLES

ARM 17.8, Subchapter 3, Emission Standards §325

The permittee shall comply with ARM 17.8.325.

W. ANNUAL EMISSION INVENTORY

ARM 17.8, Subchapter 5, Air Quality Permit Application, Operation and Open Burning Fees §505 (STATE ONLY)

The permittee shall supply the Department with annual production and other information for all emission units necessary to calculate actual or estimated actual amount of air pollutants emitted during each calendar year. Information shall be gathered on a calendar-year basis and submitted to the Department by the date required in the emission inventory request, unless otherwise specified in this permit. Information shall be in the units required by the Department.

X. OPEN BURNING

ARM 17.8, Subchapter 6, Open Burning §604, 605 and 606

The permittee shall comply with ARM 17.8.604, 605 and 606.

Y. PRECONSTRUCTION PERMITS

ARM 17.8, Subchapter 7, Permit, Construction and Operation of Air Contaminant Sources §745 and 764 (ARM 17.8.745(1), 764(1)(b) are STATE ENFORCEABLE ONLY until approval by the EPA as part of the SIP)

1. Except as specified, no person shall construct, install, alter or use any air contaminant source or stack associated with any source without first obtaining a permit from the Department or Board. A permit is not required for those sources or stacks as specified by ARM 17.8.745(1)(a)-(k).
2. The permittee shall comply with ARM 17.8.743, 744, 745, 748, and 764.

3. ARM 17.8.745(1) specifies de minimis changes as construction or changed conditions of operation at a facility holding an air quality preconstruction permit issued under Chapter 8 that does not increase the facility's potential to emit by more than 15 tons per year of any pollutant, except (STATE ENFORCEABLE ONLY until approved by the EPA as part of the SIP):
 - a. Any construction or changed condition that would violate any condition in the facility's existing air quality preconstruction permit or any applicable rule contained in Chapter 8 is prohibited, except as provided in ARM 17.8.745(2);
 - b. Any construction or changed conditions of operation that would qualify as a major modification under Subchapters 8, 9 or 10 of Chapter 8;
 - c. Any construction or changed condition of operation that would affect the plume rise or dispersion characteristic of emissions that would cause or contribute to a violation of an ambient air quality standard or ambient air increment as defined in ARM 17.8.804;
 - d. Any construction or improvement project with a potential to emit more than 15 tons per year may not be artificially split into smaller projects to avoid air quality preconstruction permitting; or
 - e. Emission reductions obtained through offsetting within a facility are not included when determining the potential emission increase from construction or changed conditions of operation, unless such reductions are made federally enforceable.
4. Any facility making a de minimis change pursuant to ARM 17.8.745(1) shall notify the Department if the change would include a change in control equipment, stack height, stack diameter, stack gas temperature, source location or fuel specifications, or would result in an increase in source capacity above its permitted operation or the addition of a new emission unit. The notice must be submitted, in writing, 10 days prior to start up or use of the proposed de minimis change, or as soon as reasonably practicable in the event of an unanticipated circumstance causing the de minimis change, and must include the information requested in ARM 17.8.745(1). (STATE ENFORCEABLE ONLY until approval by the EPA as part of the SIP)

Z. NATIONAL EMISSION STANDARD FOR ASBESTOS
40 CFR, Part 61, Subpart M

The permittee shall not conduct any asbestos abatement activities except in accordance with 40 CFR 61, Subpart M (National Emission Standard for Hazardous Air Pollutants for Asbestos).

AA. ASBESTOS
ARM 17.74, Subchapter 3, General Provisions and Subchapter 4, Fees

The permittee shall comply with ARM 17.74.301, *et seq.*, and ARM 17.74.401, *et seq.* (State only)

BB. STRATOSPHERIC OZONE PROTECTION – SERVICING OF MOTOR VEHICLE AIR CONDITIONERS
40 CFR, Part 82, Subpart B

If the permittee performs a service on motor vehicles and this service involves ozone-depleting substance/refrigerant in the motor vehicle air conditioner (MVAC), the permittee is subject to all the applicable requirements as specified in 40 CFR 82, Subpart B.

CC. STRATOSPHERIC OZONE PROTECTION – RECYCLING AND EMISSION REDUCTIONS

40 CFR, Part 82, Subpart F

The permittee shall comply with the standards for recycling and emission reductions in 40 CFR 82, Subpart F, except as provided for MVACs in Subpart B.

1. Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to §82.156.
2. Equipment used during the maintenance, service, repair or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to §82.158.
3. Persons performing maintenance, service, repair or disposal of appliances must be certified by an approved technical certification program pursuant to §82.161.
4. Persons disposing of small appliances, MVACs and MVAC-like (as defined at §82.152) appliances must comply with recordkeeping requirements pursuant to §82.166.
5. Persons owning commercial or industrial process refrigeration equipment must comply with the leak repair requirements pursuant to §82.156.
6. Owners/operators of appliances normally containing 50 or more pounds of refrigerant must keep records of refrigerant purchased and added to such appliances pursuant to §82.166.

DD. EMERGENCY EPISODE PLAN

The permittee shall comply with the requirements contained in Chapter 9.7 of the State of Montana Air Quality Control Implementation Plan.

Each major source emitting 100 tons per year located in a Priority I Air Quality Control Region, shall submit to the Department a legally enforceable Emergency Episode Action Plan (EEAP) that details how the source will curtail emissions during an air pollutant emergency episode. The industrial EEAP shall be in accordance with the Department's EEAP and shall be submitted according to a timetable developed by the Department, following Priority I reclassification.

EE. DEFINITIONS

Terms not otherwise defined in this permit or in the Definitions and Abbreviations Appendix of this permit, shall have the meaning assigned to them in the referenced regulation

APPENDICES

Appendix. A INSIGNIFICANT EMISSION UNITS

Appendix. B DEFINITIONS and ABBREVIATIONS

Appendix. C NOTIFICATION ADDRESSES

Appendix. D AIR QUALITY INSPECTOR INFORMATION

Appendix. A INSIGNIFICANT EMISSION UNITS

Disclaimer: The information in this appendix is not State or Federally enforceable, but is presented to assist ASARCO, the permitting authority, inspectors, and the public.

Pursuant to ARM 17.8.1201(22)(a), an insignificant emission unit means any activity or emission unit located within a source that: (i) has a potential to emit less than 5 tons per year of any regulated pollutant; (ii) has a potential to emit less than 500 pounds per year of lead; (iii) has a potential to emit less than 500 pounds per year of hazardous air pollutants listed pursuant to section 7412 (b) of the FCAA; and (iv) is not regulated by an applicable requirement, other than a generally applicable requirement that applies to all emission units subject to Subchapter 12.

List of Insignificant Activities:

The following table of insignificant sources and/or activities were provided by ASARCO. Because there are no requirements to update such a list, the emission units and/or activities may change from those specified in the table.

| Emission Unit ID | Description |
|------------------|--|
| IEU01 | Soda Ash Bin |
| IEU02 | Emergency Gasoline Generator for Sewer Treatment Plant |
| IEU03 | Emergency Diesel Cooling Pump (200HP) Plant Water |
| IEU04 | Emergency Diesel Cooling Pump (150HP) Blast Furnace Cooling |
| IEU05 | 2500-Gal Diesel Storage Tanks |
| IEU06 | 2500-Gal Diesel Storage Tanks |
| IEU07 | 75 Natural Gas Space Heaters and Hot Water Heaters less than 5MMBtu/hr Ea. |
| IEU08 | Water Cooling Towers – Non contact cooling water |

Appendix. B DEFINITIONS and ABBREVIATIONS

The SO₂ Control Plan SIP, Lead Control Plan SIP, and Lead MACT each contain applicable definitions for use throughout this permit. The definitions are located in their respective documents as follows:

East Helena SO₂ SIP - Exhibit A - Part I - Section 2
East Helena Lead SIP - Exhibit A - Section 2
Lead MACT - 40 CFR §63.1542

"Act" means the Clean Air Act, as amended, 42 U.S. 7401, *et seq.*

"Administrative permit amendment" means an air quality operating permit revision that:

- (a) Corrects typographical errors;
- (b) Identifies a change in the name, address or phone number of any person identified in the air quality operating permit, or identifies a similar minor administrative change at the source;
- (c) Requires more frequent monitoring or reporting by ASARCO;
- (d) Requires changes in monitoring or reporting requirements that the Department deems to be no less stringent than current monitoring or reporting requirements;
- (e) Allows for a change in ownership or operational control of a source if the Department has determined that no other change in the air quality operating permit is necessary, consistent with ARM 17.8.1225; or
- (f) Incorporates any other type of change that the Department has determined to be similar to those revisions set forth in (a)-(e), above.

"Applicable requirement" means all of the following as they apply to emission units in a source requiring an air quality operating permit (including requirements that have been promulgated or approved by the Department or the administrator through rule making at the time of issuance of the air quality operating permit, but have future-effective compliance dates, provided that such requirements apply to sources covered under the operating permit):

- (a) Any standard, rule, or other requirement, including any requirement contained in a consent decree or judicial or administrative order entered into or issued by the Department, that is contained in the Montana state implementation plan approved or promulgated by the administrator through rule making under Title I of the FCAA;
- (b) Any federally enforceable term, condition or other requirement of any air quality preconstruction permit issued by the Department under subchapters 7, 8, 9 and 10 of this chapter, or pursuant to regulations approved or promulgated through rule making under Title I of the FCAA, including parts C and D;
- (c) Any standard or other requirement under Sec. 7411 of the FCAA, including Sec. 7411(d);
- (d) Any standard or other requirement under Sec. 7412 of the FCAA, including any requirement concerning accident prevention under Sec. 7412(r)(7), but excluding the contents of any risk management plan required under Sec. 7412(r);
- (e) Any standard or other requirement of the acid rain program under Title IV of the FCAA or regulations promulgated thereunder;

- (f) Any requirements established pursuant to Sec. 7661c(b) or Sec. 7414(a)(3) of the FCAA;
- (g) Any standard or other requirement governing solid waste incineration, under Sec. 7429 of the FCAA;
- (h) Any standard or other requirement for consumer and commercial products, under Sec. 7511b(e) of the FCAA;
- (i) Any standard or other requirement for tank vessels, under Sec. 7511b(f) of the FCAA;
- (j) Any standard or other requirement of the regulations promulgated to protect stratospheric ozone under Title VI of the FCAA, unless the administrator determines that such requirements need not be contained in an air quality operating permit;
- (k) Any national ambient air quality standard or increment or visibility requirement under part C of Title I of the FCAA, but only as it would apply to temporary sources permitted pursuant to Sec. 7661c(e) of the FCAA; or
- (l) Any federally enforceable term or condition of any air quality open burning permit issued by the Department under subchapter 6.

"Department" means the Montana Department of Environmental Quality.

"Emission unit" means any part or activity of a stationary source that emits or has the potential to emit any regulated air pollutant or any pollutant listed under Sec. 7412(b) of the FCAA. This term is not meant to alter or affect the definition of the term "unit" for purposes of Title IV of the FCAA.

"Excess Emissions" means any visible emissions from a stack or source, viewed during the visual surveys, believed to exceed the visible emissions during normal operating conditions.

"Excess Fugitive Emissions" means any visible emissions that leave the plant site boundaries.

"FCAA" means the Federal Clean Air Act, as amended.

"Federally enforceable" means all limitations and conditions which are enforceable by the administrator, including those requirements developed pursuant to 40 CFR Parts 60 and 61, requirements within the Montana state implementation plan, and any permit requirement established pursuant to 40 CFR 52.21 or under regulations approved pursuant to 40 CFR Part 51, Subpart I, including operating permits issued under an EPA approved program that is incorporated into the Montana state implementation plan and expressly requires adherence to any permit issued under such program.

"Fugitive emissions" means those emissions that could not reasonably pass through a stack, chimney, vent, or other functionally equivalent opening.

"General air quality operating permit" or "general permit" means an air quality operating permit that meets the requirements of ARM 17.8.1222, covers multiple sources in a source category, and is issued in lieu of individual permits being issued to each source.

"Hazardous air pollutant" means any air pollutant listed as a hazardous air pollutant pursuant to section 112(b) of the FCAA.

"Non-federally enforceable requirement" means the following as they apply to emission units in a source requiring an air quality operating permit:

- (a) Any standard, rule, or other requirement, including any requirement contained in a consent decree, or judicial or administrative order entered into or issued by the Department, that is not contained in the Montana state implementation plan approved or promulgated by the administrator through rule making under Title I of the FCAA;
- (b) Any term, condition or other requirement contained in any air quality preconstruction permit issued by the Department under subchapters 7, 8, 9 and 10 of this chapter that is not federally enforceable;
- (c) Does not include any Montana ambient air quality standard contained in Subchapter 2 of this chapter.

"Permittee" means the owner or operator of any source subject to the permitting requirements of this subchapter, as provided in ARM 17.8.1204, that holds a valid air quality operating permit or has submitted a timely and complete permit application for issuance, renewal, amendment, or modification pursuant to this subchapter.

"Regulated air pollutant" means the following:

- (a) Nitrogen oxides or any volatile organic compounds;
- (b) Any pollutant for which a national ambient air quality standard has been promulgated;
- (c) Any pollutant that is subject to any standard promulgated under Sec. 7411 of the FCAA;
- (d) Any Class I or II substance subject to a standard promulgated under or established by Title VI of the FCAA; or
- (e) Any pollutant subject to a standard or other requirement established or promulgated under Sec. 7412 of the FCAA, including but not limited to the following:
 - (i) Any pollutant subject to requirements under Sec. 7412(j) of the FCAA. If the administrator fails to promulgate a standard by the date established in section 7412(e) of the FCAA, any pollutant for which a subject source would be major shall be considered to be regulated on the date 18 months after the applicable date established in section 7412(e) of the FCAA;
 - (ii) Any pollutant for which the requirements of section 7412(g)(2) of the FCAA have been met but only with respect to the individual source subject to Sec. 7412(g)(2) requirement.

"Responsible official" means one of the following:

- (a) For a corporation: a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for or subject to a permit and either:
 - (i) The facilities employ more than 250 persons or have gross annual sales or expenditures exceeding \$25 million (in second quarter 1980 dollars); or

- (ii) The delegation of authority to such representative is approved in advance by the Department.
- (b) For a partnership or sole proprietorship: a general partner or the proprietor, respectively.
- (c) For a municipality, state, federal, or other public agency: either a principal executive officer or ranking elected official. For the purposes of this part, a principal executive officer of a federal agency includes the chief executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., a regional administrator of the environmental protection agency).
- (d) For affected sources: the designated representative in so far as actions, standards, requirements, or prohibitions under Title IV of the FCAA or the regulations promulgated thereunder are concerned, and the designated representative for any other purposes under this subchapter.

From Permit 2557-10/11

The following definitions apply throughout this permit:

1. "Calendar Day" means a 24-hour period starting at 12:00 midnight and ending at 12:00 midnight, 24 hours later, with the span of time occurring during one calendar date.
2. "CEMS-Derived Hourly Emission Rate" means a sulfur dioxide emission rate (expressed in tons per hour) determined using hourly averages and calculated using equation A-01 (below).

$$\text{Equation A-01: } CDHER = HASO_2 \times HASGFR \times (4.98E - 09)$$

Where:

CDHER = CEMS-Derived Hourly Emission Rate (tons/hour),

HASO₂ = Hourly Average SO₂ Concentration (parts per million, wet basis)

HASGFR = Hourly Average Stack Gas Flow Rate (wet basis, standard cubic feet per minute)

4.98E-09 = A constant with a value of 4.98×10^{-9}

Equation A-01 is derived from conversion factors based upon the wet measurement of SO₂ and stack flow rate. If concentrations and stack gas flow rates are determined on a dry basis, a different equation must be used to determine emissions of sulfur dioxide, and the equation must be approved by the Department.

3. "Clock Hour" means one twenty-fourth (1/24) of a calendar day and refers to any of the standard 60-minute periods in a day which are generally identified and separated on a clock by the whole numbers one through twelve.
4. "Complete 15-Minute Data Block" means an arithmetic average of a minimum of nine one-minute values or 60% of the duration of a 15-minute data block. A complete 15-minute data block must be derived from valid data, and obtained from a continuous sulfur dioxide monitor, continuous temperature monitor, or continuous flow rate monitor which measures SO₂ concentrations, temperature, or flow rate such that no more than one minute can elapse between measurements. A 15-minute data block refers to any one of the four 15-minute periods in a clock hour, commencing with the first, sixteenth, thirty-first, and forty-sixth minute of the clock hour.

5. "Continuous Emission Monitoring System (CEMS)" means all equipment necessary to obtain an hourly emission rate of sulfur dioxide including, but not necessarily limited to, a continuous emission monitor (CEM) that determines sulfur dioxide concentrations in a stack gas, a continuous stack gas volumetric flow rate monitor that determines stack gas flow rates, and associated data acquisition equipment.
6. "Daily Emissions" means the amount of sulfur dioxide (SO₂) emitted in a calendar day (expressed in tons per day) as determined in accordance with the matrix contained in Table 1 and utilizing Equation A-02. The following table provides a template for determining daily emissions for the Acid Plant Stack.

| Table 1. daily emissions matrix – acid plant stack | | |
|---|---|---|
| # of CEMS-derived hourly emission rates available per calendar day | Stack operating hours per calendar day equals 24 | Stack operating hours per calendar day not equal to 24 |
| 24 CEMS-derived hourly emission rates | Daily emissions = sum all CEMS-derived hourly emission rates for the given calendar day | Daily emissions = sum all CEMS-derived hourly emission rates for the given calendar day |
| Less than 24 and greater than or equal to 20 CEMS-derived hourly emission rates | Daily emissions calculated using equation A-02 | Daily emissions calculated using equation A-02 |

Daily emissions for the Acid Plant Stack shall be determined in accordance with Rows 1 and 2 of Table 1, above, and Equation A-02 (below).

$$\text{Equation A-02: DEAPS} = \left[\left(\sum \text{CDHEROH} \times \text{OH} \right) / \text{OHCDER} \right] + \sum \text{CDHEROTOH} + \sum \text{DMHER}$$

Where:

DEAPS = Daily Emissions from Acid Plant Stack (tons/day)

ΣCDHEROH = sum of CEMS-Derived Hourly Emission Rates for Operating Hours

OH = number of Operating Hours

OHCDER = number of operating hours for which CEMS-derived emission rates are available

ΣCDHEROTOH = sum of CEMS-Derived Hourly Emission Rates for hours Other Than Operating Hours

ΣDMHER = sum of De Minimis Hourly Emission Rates

7. "De Minimis Hourly Emission Rate" means an emission rate for the acid plant stack, which shall apply during those clock hours that are not operating hours, and for which a CEMS-derived hourly emission rate is unavailable. The de minimis hourly emission rate is 0.00 tons per hour of sulfur dioxide for the acid plant stack.
8. "Furnace Lead" means the total tons of bullion and Speiss/Matte produced.
9. "Hourly Average" means an arithmetic average of all complete 15-minute data blocks for a clock hour. A minimum of three complete 15-minute data blocks are required to determine an hourly average for each monitor per clock hour.
10. "Natural Draft Opening" or "NDO" means any permanent opening that remains open while the facility is operating and is not connected to a ventilated duct. Garage doors, employee doors, and temporary openings necessary for maintenance and repairs shall not be considered as NDO, provided ASARCO keeps such openings in their closed position except when actually in use.
11. "Operating Hours" means:
 - a. For the acid plant stack, those clock hours when the acid plant is operating, as determined by the use of contemporaneous operating logs, production logs, and/or other records, which indicate the operating status of the acid plant.

- b. For any lead bearing affected facility, those clock hours when the affected facility is starting up, shutting down, using fuel, or processing materials, and lead emissions are expected from the source, building, or stack.
12. "Quarterly Data Recovery Rate" means the relationship between the number of operating hours in a calendar quarter when CEMS-derived hourly emission rates are available for a stack in comparison to the number of corresponding operating hours during the calendar quarter, and expressed as a percentage. The quarterly data recovery rate for a stack shall be calculated in accordance with the following equation:

$$\text{Equation A-03: } QDRR = \left(\frac{CDHERCQOH}{OHCQ} \right) \times 100$$

Where:

QDRR = quarterly data recovery rate

CDHERCQOH = CEMS-Derived Hourly Emission Rates in a Calendar Quarter that are also Operating Hours

OHCQ = total number of Operating Hours in a Calendar Quarter

13. "Standard Conditions" means 20°C (68°F) and 1 atmosphere (29.92" Hg).
14. "Unusual Circumstances" means circumstances that are beyond ASARCO's control, such as earthquakes, lightning, area-wide power outages, or fire; but does not include malfunctions of any monitoring equipment or associated data acquisition equipment unless such malfunctions meet the following conditions:
- a. ASARCO has properly designed the continuous emission monitoring and stack flow rate monitoring systems, including the associated data acquisition systems (CEMS).
 - b. ASARCO has properly operated and maintained the continuous emission monitors, stack flow rate monitors, and associated data acquisition systems (CEMS).
 - c. ASARCO has maintained a complete inventory of those spare parts that are reasonably expected to fail, which would allow ASARCO to substantially replace the continuous emission and stack flow rate monitors, as well as the associated data acquisition systems (CEMS).
 - d. ASARCO has maintained a larger inventory of spare parts for those CEMS parts that have shown a history of failure.
 - e. ASARCO produces evidence that it has exhausted its spare parts inventory specific to the problem or malfunction and can show evidence that additional spare parts were ordered within two working days of the inventory being exhausted for the specific part.
 - f. ASARCO produces evidence that it has taken all reasonable steps to minimize the period of non-operation of the monitor or associated data acquisition equipment (CEMS).
 - g. ASARCO submits a report to the Department, documenting that the malfunction meets the above conditions, within one week of occurrence. ASARCO shall promptly notify the Department by telephone of the occurrence of unusual circumstances, as defined herein, except that if telephone notification is not immediately possible, notification at the beginning of the next working day is acceptable.

15. "Valid Data" means data that is obtained from a continuous sulfur dioxide emission monitor, continuous temperature monitor, or continuous flow rate monitor, which meets the applicable specifications, operating requirements and quality assurance and control requirements contained in this permit.

Abbreviations:

| | |
|-----------------|---|
| ARM | Administrative Rules of Montana |
| ASTM | American Society of Testing Materials |
| BACT | Best Available Control Technology |
| BDT | bone dry tons |
| BTU | British Thermal Unit |
| CFR | Code of Federal Regulations |
| CO | carbon monoxide |
| DEQ | Department of Environmental Quality |
| dscf | dry standard cubic foot |
| dscfm | dry standard cubic foot per minute |
| EEAP | Emergency Episode Action Plan |
| EPA | U.S. Environmental Protection Agency |
| EPA Method | Test methods contained in 40 CFR 60, Appendix A |
| EU | emission unit |
| FCAA | Federal Clean Air Act |
| gr | grains |
| HAP | hazardous air pollutant |
| HERO | High Efficiency Reverse Osmosis |
| IEU | insignificant emission unit |
| Mbdft | thousand Board feet |
| Method 5 | 40 CFR 60, Appendix A, Method 5 |
| Method 9 | 40 CFR 60, Appendix A, Method 9 |
| MMbdft | million Board feet |
| MMBTU | million British Thermal Units |
| NO _x | oxides of nitrogen |
| NO ₂ | nitrogen dioxide |
| O ₂ | oxygen |
| Pb | lead |
| PM | particulate matter |
| PM10 | particulate matter less than 10 microns in size |
| psi | pounds per square inch |
| scf | standard cubic feet |
| SIC | Source Industrial Classification |
| SO ₂ | sulfur dioxide |
| SO _x | oxides of sulfur |
| tpy | tons per year |
| U.S.C. | United States Code |
| VE | visible emissions |
| VOC | volatile organic compound |
| QDRR | quarterly data recovery rate |
| NDO | Natural Draft Opening |
| SOP | Standard Operating Procedure |
| I&M | Inspection and Maintenance |

Appendix. C NOTIFICATION ADDRESSES

Compliance Notifications:

Montana Department of Environmental Quality
Permitting and Compliance Division
Air & Waste Management Bureau
P.O. Box 200901
Helena, MT 59620-0901

United States EPA
Air Program Coordinator
Region VIII, Montana Office
Federal Office Building
10 West 15th Street, Suite 3200
Helena, MT 59626

Permit Modifications:

Montana Department of Environmental Quality
Permitting and Compliance Division
Air & Waste Management Bureau
P.O. Box 200901
Helena, MT 59620-0901

Office of Partnerships and Regulatory Assistance
Air and Radiation Program
US EPA Region VIII 8P-AR
999 18th Street, Suite 300
Denver, CO 80202-2466

Appendix. D AIR QUALITY INSPECTOR INFORMATION

Disclaimer: The information in this appendix is not State or Federally enforceable but is presented to assist ASARCO, permitting authority, inspectors, and the public.

1. Direction to Plant:

The ASARCO smelting facility is located in the Northwest 1/4 of Section 36, Township 10 North, Range 3 West. The East Helena Plant is located within the City of East Helena, 3 miles to the east of Helena. Highway 12 serves as the major thoroughfare between the City of Helena and the City of East Helena, as well as the northern boundary of the Asarco facility. Heading east on Highway 12, turn right and proceed south on Highway 282 to the main entrance of the smelter.

2. Safety Equipment Required:

ASARCO will require safety shoes, hard hat, safety glasses, hearing protection and appropriate protective clothing. The facility will also require respiratory protection for specific areas of the plant. To mitigate exposure to lead, ASARCO may provide additional protective clothing.

3. Facility Plot Plan:

A copy of the Facility Plot Plan was submitted with the operating permit application, April 24, 2000.